1. Moral emotions and supporting theories
    1. Fear, the Precautionary Principle, and the Four Dimensions of Risk
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Fear, the Precautionary Principle, and the Four Dimensions of Risk

This module first examines the emotion of fear and then examines both the Precautionary Principle and Risk theories and practices as "outgrowths" of this emotion. It is based loosely on a prior module by the author, "Ethical Issues for Risk Management in Business." The author would like to acknowledge the National Science Foundation for its support through the grant, "Cultivating Responsible Wellbeing in STEM: Social Engagement Through Personal Ethics", NSF SES 1449489.

This is a first version. There are still a few bugs to be worked out. This module is one of five that center on emotions, their underlying and supporting theories, and the virtues in which they can be inscribed. Emotions provide an effective way to combat the disengagement of STEM students; studies are out that indicate that STEM students become increasingly disengaged from social, ethical, and global issues as their undergraduate studies progress. Erin Cech argues that this stems from three ideologies characteristic of the STEM curriculum: depoliticization, the devaluation of the social, and meritocracy. (See “Culture of Disengagement in Engineering Education?” Erin A. Cech. Science, Technology, and Human Values 2014, 39 (1)) Given this disengagement, emotions seem a promising route for reengagement. You will find in this module reasons for reflecting on fear, using the supporting theories of risk and precaution to support and guide this emotion, and integrating fear into the supporting structure of the virtue of moral courage.

I. Introduction:

In the mid-1990s, the U.S. Navy proposed building a radar facility near Lajas, Puerto Rico to monitor drug trafficking in the Caribbean as well as illegal immigration from the Dominican Republic and Haiti. Opposition to this project emerged and led to public hearings that took place in Lajas in the mid-1990s. Much of the opposition centered on the electromagnetic fields (EMFs) that would be generated by radar facilities and the public’s fear of the adverse health effects of exposure to these.

Engineers took stands on both sides of this issue. Those supporting the project expressed exasperation over what they perceived as the tendency of the public to give way to irrational fear in the face of new technology. They saw the public’s perception of the risks associated with exposure to EMFs as tantamount to a stampede to irrationality driven by fear rather than rational, scientific assessment. Since no risk has been irrefutably attributed to radar facilities and the EMFs they generate, the project should be allowed to continue as planned.

Engineers who opposed the radar facilities, held that emotions like fear can be grounded in rational appraisals that assess the impact of this technology on individual and community well-being. Sabine Roeser provides a general statement of this position (Roeser 2018). For example, fear can be tied to a judicious use of the Precautionary Principle: this principle counsels that, in the face of uncertainty, one should proceed with caution. From some versions of the Precautionary Principle, then, one can argue that the construction of the radar facility should be halted until conclusive evidence can be uncovered proving that exposure to EMFs would not be harmful.

At the same time that this debate was taking place within Puerto Rico, the PBS series, *Frontline*, broadcast a documentary over the controversy surrounding EMFs (June 13, 1995: *Currents of Fear*). They summarized different risk assessment studies carried out to help decision-makers in the government decide on whether or not to regulate activities that expose the public to EMFs.

June 13, 1995. Currents of Fear. Frontline, June 13, 1995. Season 13, Episode 19. Episode no longer available but has been placed on YouTube: https://www.youtube.com/watch?v=rMqNoj0Ne6U

- The Frontline documentary cited an **epidemiological** study carried out in Sweden. This study compared a population exposed to EMFs to one not exposed and found a risk ratio of four; the exposed population contained four times the incidents of illnesses such as leukemia when compared to those unexposed to EMFs. This risk ratio is considered significant by some but falls below the levels found in studies of cigarette smokers or workers exposed to asbestos; both showed risk ratios from 10 to 20. This lends credibility to the claims that exposure to EMFs presents no significant risk to public health.
- The Illinois Institute of Technology constructed a “rodent electromagnetic exposure facility” and set about testing some 3000

> rodents exposing them to differing levels of EMFs; a control group received no exposure while others received from 20 to 10,000 milligauss of exposure. Several studies were carried out: fetal abnormality studies, reproductive studies, cancer studies using cancer-prone mice, an immunological study, and a study into the chronic effects of lifetime exposure; in short, scientists attempted to explore a wide variety of possible mechanisms through which EMFs could cause cancer. All of these turned out negative. These studies, called **animal bioassays**, require two projections, one from animal physiology to human physiology and another from intensive short term exposures to less intensive exposures over much longer periods. Had the high intensity exposures shown significantly higher incidences of the targeted disease than the control group, then further studies would have been carried out to search for a causal mechanism to explain the correlation. "Currents of Fear" outlined different possible causal mechanisms including whether EMFs could "break or rearrange" cell DNA or whether they could stimulate and activate cancer genes.

Both studies give rise to uncertainties. In epidemiological studies, uncertainty arises from the difficulty of finding stable populations of exposed individuals to compare with stable populations of unexposed individuals. People move about and rarely stay put long enough to allow the illnesses caused by exposure to become manifest. In animal bioassays, uncertainty arises from the projection from animal physiology to human physiology and from the projection of an intense exposure to the risk factor over a short time to a less intense exposure over a longer time.

Risk assessment studies in general raise two more uncertainties: whether the harm under study will actually occur and who out of the many exposed will be harmed. Uncertainty in risk assessment raises ethical concerns over how it should be distributed and who should bear the burden of proof in a regulatory debate. If one places the burden of proof on those who advocate taking the risk, then proponents would have to prove the activity safe before it could be carried out. If one places the burden of proof on those who would stop or regulate the activity, then *they* would have to prove the product or activity unsafe. Overregulation can diminish well-being by prohibiting promising activities that pose minimal risks. Under-regulation harms well-being by allowing activities that expose individuals to unacceptable risks that are often inequitably distributed. How we distribute the burden of uncertainty has strong ethical implications; it reflects our values on taking risks as well as how to distribute fairly the risks and benefits associated with the project or activities under consideration. How we respond to uncertainty has especially strong implications for social justice.

We accept risks all the time. Everyday activities like driving cars bring with them significant risks that we, nevertheless, deem acceptable. How do we, then, ethically determine the levels of acceptable risk? Such decisions might be allocated to the experts who carry out the scientific studies (epidemiological studies or animal bioassays) that assess risk and assign probabilities of harm. Or, should this prove paternalistic, we might adopt procedures that give the public more voice in determining acceptable risk, even if this deviates from scientific risk assessment. This was the purpose behind the public hearings held in Lajas, Puerto Rico; these hearings gave opponents to the construction of the radar facility a chance to make their case. But, again, *risk perception* is often at variance with *expert risk assessment*. Can this variance be attributable to the irrationality of the public, i.e., its propensity to be carried away by emotion and imagination?

Another factor arises in debates over risk: eliminating or reducing risk is difficult and often expensive. Driving a tank is safer than driving a car but tanks are unaffordable and slow; we trade off the additional risks of driving cars for the clear benefits of speedy, comparatively inexpensive, and comfortable transportation. Hence, when ethicists turn to defining safety, they do not define it as *zero* risk but as *acceptable* risk. For example, according to Martin and Schinzinger, "**A thing is safe if, were its risks fully known, those risks would be judged acceptable by a reasonable person in light of settled value principles**" (Intro to EE 109 Martin and Schinzinger). Indeed, as we will see below, the public makes use of a broader perspective on risk that includes social, ethical, and environmental value. For some, this broader perspective appeals to a different rationality that, in some senses, rivals the narrower, scientific, and technical perspective (Sunstein and Slovic).

What you need to know

Risk emerges out of fear. Practices centering around risk assessment, management, perception, and communication draw upon theoretical frameworks that can be used to guide and regulate fear so that it is felt on the right occasions, to the right degree, and in the appropriate circumstances (NE 1125b 32-34). (Find the reference in Aristotle's NE) Fear consists of a series of appraisals or judgments of a future impending object's impact on an individual's well-being. Because fear consists of appraisals or judgments, it is cognitive. Furthermore, because it is cognitive, it can be true or false as well as rational or irrational; it can effectively guide us as we enter a world of threatening objects but it can also misfire causing us to act recklessly when caution is warranted or timidly in situations calling for bold and decisive action. The concept of risk and its associated dimensions (risk perception, risk assessment, risk management, and risk communication) provide us with tools for shaping and directing the basic emotion of fear (**Acceptable Evidence**). When guided by a robust conception of risk, fear is steered away from extremes that misinform appraisal and focuses on the mean. This centering on the mean (and avoiding the extremes of excess and defect) promotes well-being.

We begin by examining the general characteristics of fear as an emotion. Then we will look at the role the emotion fear plays in the virtue that many call moral courage. For Aristotle this virtue hits the mean between the extremes; for MacIntyre, it brings about habits and dispositions that help individuals contribute to the essential goods of a practice or profession. We will then outline various practices associated with risk that help steer fear in the right direction. Finally, we will look at the controversial Precautionary Principle. This notion has several different versions; those that best steer fear toward promoting well-being lie between strong and weak versions. Fear plays an essential role in our day-to-day lives and these theoretical perspectives help keep this powerful emotion on the right track.

An Appraisal Theory of the Emotion of Fear

These four propositions summarize fear as an emotion from the standpoint of the appraisal theory:

1. Definition. According to Aristotle, “Fear may be defined as a pain or disturbance due to a mental picture of some destructive or painful evil in the future” (Rhetoric, 1382a20, loc 33978). Martha Nussbaum provides a different translation in **Monarchy of Fear**, page 23: “Aristotle defined fear as pain at the seeming presence of some impending bad thing combined with a feeling that you are powerless to ward it off.” To develop this notion of fear, fear’s object will be outlined, its appraisals stated, and the correlative virtue will be clarified both as the mean between the extremes and as habits and dispositions that contribute to engineering practice.

2. Fear as an emotion is an intentional state of mind. According to Martha Nussbaum, "emotions “imply intentional thought or perception directed at an object (as perceived or imagined by the person who has the emotion) and some type of evaluative appraisal of that object made from the agent’s own personal viewpoint” (Nussbaum, Anger, Appendix A, loc. 5440). The objects intended by emotions differ from one another in terms of **temporality** (past, present, future), **valence** (a positive or negative impact on well-being), and **modality** (the object is possible, actual, or necessary). Turning to fear, its temporality is the **future**, its valence **negative** in that the object threatens to diminish the emoter’s well-being, and the danger it represents remains a **possibility**.

3. *Fear as an emotion is composed of appraisals (or judgments) that assess the impact of the emotion's object on the well-being of the individual having the emotion and provide the emotion with its cognitive content*. According to Nussbaum (UT 28), “[i]n order to have fear--as Aristotle already saw--I must believe that bad events are impending; that they are not trivially but seriously bad; and that I am not entirely in control of warding them off.” These beliefs are judgments or appraisals of the impact of the object of the emotion on the well-being of the emoter. They are also necessary constituents of emotions. For example, when I believe that “bad events are impending” and “that I am not entirely in control of warding them off” then I am experiencing fear. These appraisals may be false or irrational. I may be mistaken and think I perceive a threat when there isn’t one; or I construe a threat as sizable when it is actually trivial. I may also be mistaken in what I consider essential to my well-being. Emotions are fallible in that their constitutive appraisals may be false or irrational. But they are corrigible;

my fear is responsive to standards of truth and rationality, and, in general, emotions are, as Aristotle would put it, responsive to reason. I can bring my emotions into the light of reflection and assess their appraisals by holding these up to standards of truth and rationality.

An emotion misfires when its constitutive appraisals misconstrue the intentional object or mischaracterize its impact on well-being. Martha Nussbaum, in **Political Emotions**, identifies the different ways in which fear's appraisals can "misfire." (She derives these from Aristotle's discussion of how speakers can persuasively appeal to an audience's emotions through arguments that address the appraisals that constitute these emotions.) Fear can lead us astray when we have … (PE 321)

"misidentified the threat"

"misestimated its size"

rendered judgments that are "right about the threat but wrong about who caused it"

formed a "conception of …well-being that is off-kilter." For example, Nussbaum holds that one might construe well-being too narrowly by reducing well-being in general to the well-being of one's particular group or tribe.

So fear may lead the residents of Lajas (1) to "misidentify the threat" of radar facilities (radar facilities are harmful but not because the EMFs they produce cause leukemia), (2) to "misestimate" the size of the threat (EMFs do cause leukemia but not the small quantities generated by radar facilities), (3) to be "right about the threat but wrong about [its] cause" (leukemia is a threat but it is not caused by EMFs) and (4) to fail to appreciate the risks of EMFs because their "conception of...well-being ...is off-kilter." (Proponents of the radar facilities may believe the funds it will bring to Lajas will contribute to the community's well-being without factoring in the health risks the facility will bring along with its moral harms).

In a word, whether or not the fear experienced by participants in the public hearings is warranted depends on the risks the radar facility poses to community health and well-being.

4. Correlative Virtue. Fear works best when integrated into “acquired habits of understanding, perception, emotion, and behavior that promote the welfare of their possessor or of the community, and ideally of both (Andre, Worldly Virtue, 6). The virtue of fear can be unpacked in two ways. One, following Aristotle, characterizes the virtue of fear as the mean between the extremes of excess and defect. Too much fear leads to the vice of cowardice while too little fear leads to the vice of recklessness. Another way to understand virtue is that set of “acquired habits” that promote the internal goods of a practice or profession. This view, held by Alasdar MacIntyre, would place fear in the context of the practice of determining and managing risk viewed as the probability of harm. The different dimensions of risk determination and management would provide guidance to fear as this emotion uncovers potentially dangerous objects, assesses their impact on the value of well-being, and motivates properly responsive action, i.e., avoiding risky activities and taking measures to minimize and control the risks posed.

Let’s approach this more systematically. The excellence which guides or steers fear can be understood through two different, theoretical approaches to virtue, one elaborated by Aristotle, the other by Alasdar MacIntyre.

1. Aristotle's full definition of virtue is "*a state of character concerned with choice, lying in a mean, i.e. the mean relative to us, this being determined by a rational principle, and by that principle by which [a person] of practical wisdom would determine it*." (Ross's translation in Nichomachean Ethics, 1106b, 36.). Thus, moral courage is not zero fear but, the proper amount of fear the mean between recklessness (too little fear) and cowardice (too much fear). The Precautionary Principle can be presented in this context as a theoretical tool that can guide fear toward the virtuous mean. Properly formulated--a formulation that avoids the extremes of its strong and weak versions--the Precautionary Principle will use fear as a motivational tool that will help us avoid the extremes of over and under regulation.

2. Alasdair MacIntyre provides a different approach to virtue. For him, “*A virtue is an acquired human quality the possession and exercise of which*

tend to enable us to achieve those goods which are internal to practices and the lack of which effectively prevents us from achieving any such goods" (AV ?). Thus, for MacIntyre, a virtue is a constellation of attitudes or emotions and dispositions that stand to bring about the internal goods of a practice. Engineers and regulators have posed a series of risk-related concepts and practices that help guide fear toward well-being. **Risk assessment** deploys scientific procedures that calculate the probability of harm within acceptable parameters of uncertainty. **Risk perception** provides insight into how non-experts (members of the general public) perceive risk. This perception relies on emotion and imagination. Emotions, especially fear, help us attend to the values and moral salience embedded in our concrete circumstances (Roeser). How we perceive and attend risk can also be informed by **risk communication** that incorporates elements of public dialogue and democratic deliberation. Risk communication helps generate and validate informed consent on the part of risk takers; it emphasizes communicating risk in a manner that is informative, comprehensible, and non-paternalistic. It also brings to the surface the mental heuristics we use to highlight and assess risk. Risk communication (and perception) understand the role that heuristics play in the framing of risk. Among these heuristics are the availability heuristic, probability neglect, loss aversion, benevolence of nature, and system neglect (Sunstein, Laws of Fear, ?). Risk communication is the the nuanced process of communicating complex risk information to non-experts who must process this information in their deliberations about risk acceptability. Finally, **risk management** is the political and social process of putting all of this together into a collective and informed decision as to the acceptability of a given risk in terms of settled, widely shared value commitments.

This process (the risk process) provides in its totality a series of practices and concepts that function as the virtue of fear (or moral courage) in MacIntyre's sense. Here, fear "*enable[s] us to achieve those goods which are internal to practices*";fear brings our attention to matters salient to well-being, signals the value of well-being, and motivates action that contributes to well-being.

Glossary of Concepts for Risk and the Precautionary Principle

In the previous section, several concepts were used that require more careful definition and exposition. This section will provide that clarification.

Generic version of the Precautionary Principle

Cass Sunstein provides a generic version that captures the central features of the precautionary principle: *"regulators should take steps to protect against potential harms, even if causal chains are unclear and even if we do not know that those harms will come to fruition."* The PC is triggered when individuals are faced with significant risks (probabilities of harm). Lack of knowledge, especially knowledge of causal chains, is not an excuse for setting aside regulation. This version roughly steers fear between the extremes of excess and defect; it avoids excessive fear of the new activity, product, or substance but allows enough fear to highlight key risks.

Weak version of the precautionary principle

On one end of the continuum between strong and weak versions of the PC, Cass Sunstein cites the 1992 Rio Declaration as an example of the **weak version** which can suppress helpful fear and leads to under regulation: *"where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for proposing cost-effective measures to prevent environmental degradation."* (Sunstein 18) Sunstein has in mind risks such as those posed by climate change. Climate "deniers" use uncertainty as an excuse for setting aside regulatory action. Since we cannot prove that a particular activity should be regulated because it contributes to climate change, and the burden of proof is on the individual who wishes to regulate the activity, the default is to go ahead with the activity. Do it unless it has been conclusively proved harmful.

Strong version of the precautionary principle

Dr. Brant Blackwelder from Friends of the Earth provides an example of the strong formulating of the precautionary principle (according to Sunstein): *"when there is a risk of significant health or environmental damage to others or to future generations and when there is scientific uncertainty as to the nature of that damage or the likelihood of the risk, then decisions should* *be made so as to prevent such activities from being conducted unless and until scientific evidence shows that the damage will not occur.”* This strong version blocks an activity unless it can be proven conclusively safe and free of risk. The strong version, thus, sets the bar too high at zero or near zero risk.

Table comparing strong and weak versions:
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Glossary of concepts associated with fear and risk:

1. **Safety** is essentially acceptable risk. For example, Martin and Schinzinger define safety as acceptable risk for engineers in the following formulation: *“A thing is safe if, were its risks fully known, those risks would be judged acceptable by a reasonable person in light of settled value principles.”* This account of safety requires an orderly public dialogue among reasonable stakeholders who share certain “settled” value principles.

1. **Risk Assessment**: Risk assessment is the scientific determination of the probability of harm. Examples of risk assessment include animal bioassays and epidemiological studies. Risk assessment studies, although scientific, still issue in uncertainties that cannot be completely eliminated. How this uncertainty is dealt with raises important ethical issues. For example, deciding who should bear the burden of this uncertainty and who should reap its benefits raises issues in distributive justice. Another important consideration is the integrity of the process used to conduct a risk assessment study. At the very least it should be guided by what Office of Research Integrity manual on research ethics terms the four **epistemic values** of scientific research: **honesty**, **accuracy**, **efficiency**, and **objectivity**.

1. **RiskPerception**. This concerns the way in which the public comes to perceive and qualitatively assess risk. There are two broad positions taken by those who do research in this area. In the **Theoretical Position**, risk perception is considered irrational because it is driven by emotion, and emotion is irrational. Proponents argue that experts must take a paternalistic attitude toward the uninformed public whose

perception of risk is irrational. The **Participatory Position** shares with the Theoretical Position the view that the public's perception of risk is irrational because, among other things, it is tainted with emotion. Nevertheless, regulators, even experts, must give way to the public's perception of risk in a democratic system. Risk assessors must either persuade the public to accept scientific results or, failing this, embrace the public's declaration however irrational (See Roeser).

There are other views on risk perception that deny to different degrees its irrationality and the irrationality of its emotion-laden judgments. Paul Slovic argues that the public perception of risk represents an alternative—or even rival—rationality that should be taken into account for two reasons. First, it provides a richer standpoint than scientific risk assessment in that it includes normative appraisals, i.e., provides a value-laden description. Second, it is a rival rationality because it filters risk through discernable frameworks. These frameworks make the public's perception of risk predictable, and this predictability render the public's perception of risk rational. For example, risks are perceived as more acceptable if they are voluntary, present benefits that outweigh costs, allow for control, are relatively free of negative emotional concomitants (dread and unknown factors), are old rather than new, and are known rather than fraught with uncertainty. (See Roeser).

1. **Risk Communication**: This dimension focuses on how to communicate risk information to risk bearers in order to facilitate distributive justice, free and informed consent, and due process. Responsible risk communication draws upon the ability to translate scientific risk assessment information into non-technical terms. Analogies and comparisons help with this process, as does the use of concrete language. It is also important to make good use of images, metaphors, narrative, and metonymy. Finally, risk communicators must respect the public's right of free and informed consent. This breaks down into the special attention that must be paid to information, comprehension, and voluntariness (See Belmont Report):

- *Information*. Risk communicators are responsible for providing the public with information that is complete and trustworthy. This requires fulfilling the epistemic values of scientific research mentioned above, namely, honesty, accuracy, efficiency, and objectivity. It also requires that the risk communicator be free of interests that interfere with the full communication of risks associated with a project. For example, individuals advocating the radar facility in Lares may communicate tainted or incomplete information if their professional judgment is deflected by benefits they stand to gain with the construction and operation of this facility. Such interests may negatively affect risk communication even if they do not consciously intend this.

- *Comprehension*. The information communicated to the risk bearer must also be presented in a way than can be comprehended by the risk bearing public. This includes providing listeners with concrete examples, trustworthy analogies, clarifying metaphors, and helpful similes. The risk communicator should empathize with the risk bearer; this helps her to provide pertinent information and provides insight into how to make this information comprehensible. For example, individuals discussing the safety of a nuclear power plant should be prepared to answer questions such as whether they would be willing to live next door to this plant. Through empathy, the communicator places herself into the standpoint of the recipient of the information; she is able to view the information and its emotional impact from this standpoint. Empathic insight also motivates the risk communicator to go beyond statements of probability to a concrete portrayal of the existential import of the proposed risks.
- *Voluntariness*. Special effort should be made to avoid presenting information in a way that is coercive, deceptive, or manipulative. A major pitfall here is the temptation for the risk communicator to take the position of the expert and adopt a paternalistic attitude toward the public. Behavioral economists do this when they over-emphasize how risk perception is driven by certain mental heuristics like the availability heuristic and probability neglect. Treating these heuristics only as filters that bias risk perception leads to a paternalistic, I-know-better attitude. Risk communicators should not shun emotions but should avoid communications that distort the appraisals these emotions are based on. Through the study of rhetoric we learn how to persuade an audience by appealing to the appraisals or judgments their emotions are based on. But this persuasion should deploy means that do not

> cause these appraisals to become distorted or misinformed. Appeals to emotion can and should be rational and truthful. Those resorting to irrationality and falsehoods undermine the voluntariness of the act of communication.

Ilse Oosterlaken provides a good example of the role of values and emotions in risk communication when she discusses risk communication in the context of proposed wind turbine farms. She first of all provides evidence that those opposing wind turbines are selfish; they are not motivated by NIMBY or “not in my backyard.” Instead the acceptability of wind farms depends on key moral values such as distributive justice, procedural justice, trust, and aesthetic values. To take one instance, a public will oppose a wind farm if the benefits and burdens of this technology are distributed unfairly. If the public is going to be asked to bear the costs of such a farm (distortion of landscape) then they are also entitled to benefits that outweigh these costs (reduced energy costs). Oosterlaken argues that value sensitive design is important here; because wind turbine technology is value laden, designers should make special efforts to instantiate positive moral and prudential values. Value sensitive design includes a values discovery phase where designers uncover and locate values important to users and other stakeholders. Participatory design where users and other stakeholders participate in the design process from the beginning can provide a complimentary means of embedding key moral and prudential values into the resulting technological artifacts. They also provide means of fitting the artifact to the surrounding socio-technical context.

A List of Mental Heuristics (provided by Cass Sunstein in *The Laws of Fear*)

Closely related to risk perception and risk communication is the influence of **heuristics** on the perception (and appraisal) of risk. Cass Sunstein provides a useful list of these heuristics, many of which were discovered by Tversky and Khanaman. What is important is that these heuristics often deflect our perception of risk away from the results of scientific risk assessment. While experts treat this deflection as a source of misconception and error, others argue that it poses a rival rationality where the assessment of risk takes place from a broader, value-laden perspective. In other words, these heuristics can mislead because they ignore statistics and probability but they also can enrich the process by including values that are routinely passed over by the narrowly technical risk assessment process. Here are a list of heuristics that together pose a rationality that rivals that of technical risk assessment. (list taken from Sunstein, Laws of Fear.)

- **Availability Heuristic**: “examples and models widely, publicly shared are used to simplify and frame a risk especially its magnitude”

- **Probability Neglect**: “[S]trong emotions cause individuals to fail to consider probability.” For example, in hope hope: “vivid images of good outcomes will crowd out considerations of probability” while with fear “people focus on one emotionally gripping outcome among a large set of possibilities.”
- In **Loss Aversion**, “a loss from the status quo is seen as more undesirable than a gain is seen as desirable.” This heuristic cause us to “downplay potential gains” and to “fixate on potential losses.” It also results in our tolerating familiar over unfamiliar risks
- The **Benevolence of Nature** heuristic assumes that “nature is essentially benign and … human intervention is likely to carry risks.” Thus, it leads to the overregulation of pesticides (we refrain from using DDT to kill malaria-carrying mosquitos). On the other hand, it also leads us to “underestimate the risks of natural carcinogens” (we neglect the risk of radon gas in our homes).
- Finally, in **System Neglect** risks do not occur in isolation but in a system and in conjunction with other risks. These interact in such a way that addressing one risk and attempting to reduce it may inadvertently increase another risk with which it interacts. This is especially the case in addressing a complex problem such as climate change which harbors several conflicting risks and is also plagued with problems arising from the distribution of risks and benefits. People tend to take a given risk out of its context. They solve the problem it poses but miss how it interacts with other risks present in the system.

The Precautionary Principle has an important role to play in regulation and in relation to complex system-based problems such as climate change. But different heuristics of fear such as the availability heuristic and probability neglect lead us to overreact to relatively minor risks and underact to other greater risks. As a result, it is beneficial to look in more detail at risk assessment itself.

Ethics enters into the picture as stakeholders negotiate how to deal with and distribute this uncertainty. Responsible risk practice requires integrating the conflicting values and interests of the involved stakeholders in assessing, communicating, perceiving, and managing risk. It also requires a basis of trust that is difficult to build up given the diverse players that make up the risk taking and bearing situation.

What you are going to do

1. The Lajas Radar Facility

Resolved: The radar project proposed near Lajas in the mid 1990s should be halted because of the risks posed by exposing local residents to electromagnetic fields. This decision is supported by the Precautionary Principle and by sound, scientific risk assessment.

- Refer to the case described above and to the Frontline documentary, “Currents of Fear.”
- What roles should the public and risk assessment experts play in the determination of whether this project poses “acceptable risk?”

2. Energy Technologies for Puerto Rico

Assess the following technologies for generating energy in Puerto Rico in the aftermath of Hurricane Maria.

- Oil
    - Palo Seco and Aguirre facilities
    - Refinery Complex (CORCO or Commonwealth Oil Refining Company)
    - Catano Refinery (Formerly of Gulf Oil Corporation)
- Natural Gas

    - Gaso Ductos del Sur
    - Via Verde

- Eolic Power

    - Consult Oosterlaken, “Applying Value Sensitive Design (VSD) to Wind Turbines and Wind Parks: An Exploration.” Science and Engineering Ethics (2015) 20: 359-379.

- Solar Energy (e.g., solar panels).

In making your comparison, begin with the distinction between hard and soft power generation technologies. This distinction was first made by Lovins and has been repeated by Shrader-Frechette. Soft Path: solar, voltaic, wind turbines, hydro-electric, hydrogen (electrolysis). Hard Path: oil, coal, gas, nuclear fission, nuclear fusion, incineration.

Technology projects proposed for Puerto Rico go through a series of stages:

(1) project is designed and disseminated to the public through a utility-private industry coalition; it is recommended on economic grounds;

(2) Project is initially judged acceptable due to the absence of organized opposition. But opposition will slowly develop as the project is subjected to further scrutiny;

(3) Opposition strengthens and opponents use different ethical frameworks to give voice to this opposition: social justice, consent and participation, appropriateness, and environmental threats and impacts;

(4) Debate sharpens as the issue is polarized between proponents and opponents. Proponents charge that opponents are politically motivated (trying to assert a Marxist ideology or promote Puerto Rican independence) while opponents charge proponents with economic and political agendas (using the energy project and technology to maintain the economic and political status quo which favors business, corporate, and colonial interests). emerges as the project is subjected to more scrutiny; the debate between

proponents and opponents sharpens and polarizes; the project is usually rejected although sometimes accepted.

Financial Risk: **The Wisdom of Finance** by Desai

- Banks: brokers and blockchain (disruptive technology)
- Regulation (Glass Stegal and structure of FDIC)
- Correlation
- Risk Dispersal

Technical tools to deal with risk

- Credit Default Swaps
- Securitization
- Leverage
- Value at Risk (VaR)
- Gaussian Copula

3. Exercise:

Assessing different statements of the Precautionary Principle by locating them on a continuum between strong and weak versions.

Financial Risk

Since this is a first draft of this module I will be brief on financial risk with the promise to expand upon it later. To begin, there are a series of helpful books that provide good descriptions of what finance is and how it treats risk that have been written for non-experts. Three come to mind: the Wisdom of Finance by Mihir Desai and Cents and Sensibility by Gary Saul Morson and Morton Schapiro. Both look at finance from the point of view of the humanities. This would seem to imply a critical point of view, and both works do provide enough criticism to show ways in which the practice of finance contributed to the financial crisis of 2008. Nevertheless, the view of finance is made more accessible and more comprehensible by looking for analogies in literature. (Desai provides fascinating illustrations of options and diversification through the novels of Jane Austin.) Gillian Tett's older book, Fools Gold, rounds out this series. Tett is a financial reporter but, as she states in the postscript to her book, she was trained as an anthropologist. She makes use of these skills to show how derivatives were developed by a group at J.P. Morgan and then misused and abused by the rest of the financial industry. She provides a useful glossary of key terms and tools in finance some of which I will mention below.

Critically important to the narrative of finance and the financial meltdown is the repeal of Glass Stegal during the Clinton administration. This piece of legislation maintained a careful separation of commercial from investment banks. Commercial banks, insured under the FDIC (the Federal Deposit Insurance Corporation), was required to maintain deposits on hand equal to a certain percentage of debt and loans, this to prevent bank-runs. On the other hand, investment banks were allowed more room to invest and allowed to leverage themselves more. In other words, they were allowed to take more financial risks with the promise of greater financial gains.

M. Desai does a nice job of identifying different practices used by finance to deal with risk. To illustrate, he uses Jane Austin's novels (e.g., Sense and Sensibility and Pride and Prejudice) to discuss risk in the context of women entering into marriage contracts. Women during Austin's time were unable to participate in the economy so their choices in marriage were both uncertain and of profound importance to their lives and security. Consider diversification. Here Elizabeth Bennett would explore marriage contracts with different individuals looking at men who might be well off (but not of handsome), handsome (but not well off), or philosophical creating the room for deep friendship with their marriage partners. This could be seen as analogous to diversification in finance; here we handle risk by developing a diversified portfolio. Or consider options. Elizabeth might accept a marriage proposal from someone not handsome but wealthy but conditionally. She might postpone a decision or negotiate a long period of engagement as a way of preserving the possibility of a future, more advantageous proposal from one more handsome. This is analogous to purchasing an option to buy something at a later date, thus, making a limited commitment to preserve the possibility of a greater investment in the future. Thus, Desai, a finance professor at Harvard, uses risk management in marriage (in Jane Austin's fiction) to illuminate diversification and options in finance.

Gillian Tett's study of the financial crisis in 2008, Fool's Gold, shows how the misuse of financial instruments of risk management (such as derivatives, collatoralized debt obligations, credit default swaps, leveraging, and securitization) was one of the major causes of this crisis. The importance of Tett's discussion is that each of these began as a tool or technology of financial risk management but later was pulled out of its intended context (for which it was designed) and recklessly deployed in other contexts where its ramifications were not explored or understood.

Select items from Tett's Glossary

- Derivatives: "A financial instrument whose value derives from an underlying asset, most normally commodities, bonds, equities, or currencies." (277)
- Credit Default Swaps: "A contract between two parties, where the buyer pays a regular fee to the seller in exchange for a guarantee that he will be compensated in the case of any default on a stipulate piece of debt." credit default swaps were deployed as sub-prime or risky home mortgages were bundled together with other housing loans. 276
- Collateralized Debt Obligations. "A form of asset-backed security. They were typically created by bundling together a portfolio of fixed-income debt (such as bonds) and using those assets to back issuance of notes. Such notes usually carry varying levels of risk." 276
- Leverage. Techniques that can magnify returns (or lo9sses). The phrase is most commonly used to refer to debt, since the application of debt to a financial structure or strategy can magnify returns and losses." 277
- Securitization. A risk dispersal strategy where up to hundreds of mortgages or loans were bundled together and sold as packages to investors. The high risk sub-prime is, according to the theory, distributed as they are bundled together with less risk loans. Of course, those preparing these packages or bundles assumed that the loans did not interact or were not correlated. That is, they assumed that risky loans that defaulted did not bring down with them the stronger, more secure loans. This turned out to be a disastrously incorrect assumption.

Tett also defines the Gaussian Copula in her glossary: "A statistical technique developed by David Li, a former J.P. Morgan analyst, for measuring the level of correlation and default probabilities in CDOs." 277 In "Recipie for Disaster" The Formula that Killed Wall Street (Felix Salmon, Wired, Business, February 2, 2009)the misuse of this financial instrument is blamed for the excessive risks taken by investors whose faith in the calculations of this statistical method covered over the grave risks they were taking.

There will be more on risk and finance in later versions of this module.

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Vengeance and Moral Repair: The Two Roads of Anger

This module explores the moral emotion of anger. Using the appraisal theory of emotions, it interprets anger as a series of judgments concerning the impact of an external object on an agent's well-being. Anger will be understood in terms of its constitutive appraisals as well as the two roads it offers, that of moral repair and that of vengeance. This module has been prepared in conjunction with the NSF project, "Cultivating Responsible Well-being in STEM: Social Engagement Through Personal Ethics." (NSF SES 1449489) Targeting moral emotions such as fear, anger, compassion, envy, and hope in the classroom provides a powerful antidote to the disengagement of STEM students from issues of social, ethical, and global import. This module is being integrated into STEM courses at the University of Puerto Rico at Mayaguez and will undergo revisions responsive to the results of classroom insertions.

I. Introduction

This is one of five modules designed to integrate responsible well-being into the STEM curriculum. Each module is based on an emotion, a study of its appraisals, reflecting on supporting theories, and discussion of cases in which the emotion plays a key role. By studying moral emotions you will find different ways of becoming engaged with issues of social, ethical, and global import. Each of these emotions is based on different appraisals of the impact of the emotion's object on the well-being of the individual experiencing the emotion. So, to begin, studying emotions is a good way of becoming aware of the nuances of well-being.

The problem, of course, lies in the myths concerning the emotions. For the most part, we assume that emotions are non-cognitive. This means three things: (1) that emotions are irrational, (2) that they are false (or distract from the truth), and (3) that they are rarely appropriate or responsive to reality. But recent research from different disciplines such as neurology are converging on two theses: that emotions are, if not rational, then at least responsive to reason, and that emotions are built upon appraisals or judgments. These two theses are related; if emotions are, for instance, irrational, they can be made rational by examining and refining their constitutive appraisals. If anger leads us astray, it is not because anger is intrinsically non-cognitive but because one or more of its appraisals needs to be reworked. Emotions are responsive to reason because they are built upon appraisals. They can be made rational, true, and appropriate by "fixing" the content of their constitutive judgments.

This module will focus on anger. It will set forth the object of anger, its constitutive appraisals, and underlying theories that tie into STEM subject matters. After this, anger will be examined through the two practical paths that it opens: the path of transformative anger and the path of vengeance or payback anger.

II. What you need to know about anger

Aristotle in his Rhetoric sets forth the classical definition of anger. Translating the Greek word "phantasm" as “imagined,” Aristotle's definition characterizes anger as “a desire accompanied by pain for an imagined retribution on account of an imagined slighting inflicted by people who have no legitimate reason to slight one’s self or one’s own” (Nussbaum, Anger and Forgiveness, Location 414). Anger's object, a wrongful action intentionally done, diminishes the victim's well-being. Anger , then, differs from fear because it has its own external object and leads to a specific practical response. Anger's object is the intentionally-wrought action that diminishes one's well-being; its practical issue is a project to pay back the wrongdoer in kind.

Anger has three appraisals that assess the impact of its object on the agent's well-being. These are quoted directly from Nussbaum, Upheavals of Thought, p. 29

- “Some damage has occurred to me or to something or someone close to me”
- “[T]he damage is not trivial but significant”
- “[T]hat it was done by someone; probably, that it was done willingly”

Angry individuals often initiate projects of vengeance. If another has diminished one's well-being, then one seeks to do the same thing in response. If another's action has diminished one's status, then anger's response is to attempt to degrade the status of the anger-provoking individual in a similar way to a similar degree.

III. Transitional Anger

There are two roads open to those who are angry. One, championed by Martha Nussbaum, recommends replacing the road of vengeance (payback anger) with "transitional anger." This latter road converts anger into something best described as "moral repair."

Here are the requirements of moral repair set forth by Margaret Urban Walker in Moral Repair: Restructuring Moral Relations after Wrongdoing

- Holding the wrongdoer responsible
- Restoring self-respect to the victim
- Repairing and reinstating the moral standards undermined
- Bringing wrongdoers back into the moral community
- This list condenses a longer list provided by Walker on page 28 of **Moral Repair**

The paradigm narrative of moral repair comes from Nelson Mandela's actions during his term as the first black president of South Africa. Unjustly imprisoned for 27 years, Mandela could understandably have used his release and subsequent political power to seek revenge on the former leaders of South Africa (who were white) and their program of apartheid. Instead, he carried out a deliberate policy of reconciliation that embodied what Nussbaum has termed transformative anger. This program also followed closely Urban-Walker's framework of moral repair with special emphasis on restoring self-respect to the victims of apartheid, repairing broken relations between whites and blacks, and bringing the former supporters of apartheid back into the moral community by motivating them to recognize and respect blacks in their full dignity and humanity. Both the book, **Playing the Enemy**, and the movie based on it, Invictus, help us to understand this policy of reconciliation and moral repair through the case study of the elevation of the rugby team, the Springboks, to a team that represented the entire nation of South Africa.

IV. Vengeance (as a virtue)

Peter French, on the other hand, argues that there is a virtue of vengeance into which we can incorporate the emotion of anger. This virtue, seen in terms of its supporting cognitive attitudes, will help steer anger between the extremes of excessive wrath and defective timidity and passivity. Vengeance itself must operate within four constraints:

The following passage is quoted from the Virtues of Vengeance by Peter A. Frency. Here French spells out the conditions that constrain projects of vengeance. **"One of the main points of the previous section was that a basic, and I believe noneliminable, tenant of morality is that wrongdoing requires a hostile response. But a hostile response from whom, toward whom, and how hostile? There are three sorts of conditions, in addition to the communication condition (discussed in Chapter 3), that must be met for the morally legitimate use of harm in dealing with a wrongdoer. I will refer to them as the authority condition, the desert condition, and the fit condition. I think of these conditions in something like the way J.L. Austin conceived of the felicity conditions for performatives. When the conditions are satisfied, the harming of a wrongdoer is morally legitimate, a "happy" performance.**

My discussion of these conditions in this module draws heavily from French's account but in the short space available here hardly does justice to his rich discussion. I therefore recommend the reader consult French's book and work through his especially helpful examples taken from literature and the cinema.

Authority

- Only the victim of the wrongful, anger-causing act can initiate and carry out a project of vengeance. The victim can designate another as the agent of vengeance and, thus, delegate to another the task of carrying out the project of vengeance. In civilized society, victims permanently delegate authority to the law and its enforcers. What is interesting about the movies that French cites is how they dramatize instances where the authority of the law and the efficacy of its enforcers fall short and fail to prevent and respond to wrongdoing.

This failure creates a gap into which the "gunslinger" steps in order to protect and avenge the innocent

- Eliott Ness struggles with the issue of authority in Brian De Palma's The Untouchables. When Frank Nitti admits to killing Ness' partner and friend, Jim Malone (played by Sean Connery), and then brags about "beating the rap," Ness takes it upon himself to avenge the wrongful death of his partner.

Desert

To be targeted by vengeance, one must deserve it. In other words, the wrongdoer must have acted responsibly at the time he or she committed the anger-provoking act and must still be responsible at the moment of accountability, i.e., at the moment where vengeance is wrought upon him or her. This means he or she must satisfy something like Bradley's conditions of imputability: self-sameness, moral perception, and ownership.

Desert (Conditions of Imputability)

- **Self-sameness**: He or she must be identical, at the moment of accountability, to the individual who in the past committed the wrongful act. Self-sameness thus requires identity of the responsible agent over time.
- **Moral Perception**: He or she must be able to appreciate the wrongfulness of what he or she has done. In Criminal Law, this helps the court draw the line between sanity and insanity. The insane individual is one who is unable to appreciate (or perceive) the wrongfulness of the action at the time he or she is committing it. Dorothy Lewis, in **Guilty by Reason of Insanity**, argues that individuals who have suffered brain injuries and trauma prior to their criminal acts are, by these injuries, often rendered unable to appreciate the wrongfulness of their actions at the time of the crime. The movies, **Primal Fear** and **Anatomy of a Murder**, both explore the narratives of individuals who fall below the threshold of responsibility because they lack this condition of imputability.
- **Ownership**: He or she must have performed this action voluntarily (free from compulsion) and knowingly (free from ignorance). Aristotle makes a useful distinction that qualifies both of these parts of ownership. One can act under the influence of ignorance or

> compulsion but still be held responsibility because one has carried out past actions that brought about the conditions of compulsion or ignorance. Getting drunk is an example of a past decision that led to being incapacitated in the future. Actions performed under ignorance can still be imputed to these agents if the cause of that ignorance was negligence in the past. He or she should have known about X but did not make a minimal effort to do so.

Two examples of non-responsibility

Sophie (when told by the prison camp doctor that she must choose one of her two children to be sent to the death camp) failed this notion of desert because she was acting under compulsion. (The action cannot be imputed to her as a responsible agent because she lacks the general condition of ownership.) And Mad Max (in **Mad Max Beyond Thunderdome**) refused to kill Blaster when he realized that Blaster was only a child and could not be held accountable for his actions.

Fit or Proportionality

The punishment must fit the crime. In other words, the act of vengeance must be proportionate to the anger-provoking action in both its range and its magnitude. Lex Talionis best expresses this maxim: an eye for an eye. This law of vengeance was first set forth to avoid the prospect of a blood feud, a situation where a wrongful action was met by a response of an even more damaging action, which was met by a more forceful reply and so on until the cycle of action and revenge spirialed out of control. The most chilling example of this from the cinema is **The Secret of Their Eyes**. Here a man, convicted of killing another man's wife, is released from prison by authorities who wish to use his propensity to violence for their own unjust political ends. The husband finds out about this and sets about taking upon himself the role of the avenger. The punishment, revealed near the movie's end, provides a particularly gruesome attempt to duplicate the range and magnitude of the original crime.

Communication

Finally a successful project of vengeance must communicate to the wrongdoer the wrongfulness of the anger-causing action. Vengeance, thus, serves both educative and rehabilitative functions. For example, in **Once**

Upon a Time in the West, Harmonica communicates to Frank this wrongfulness when he places the harmonica back in Frank's mouth and, in this way, puts him in the place of the victim. The project of vengeance here powerfully communicates to the wrongdoer the wrongfulness of this action.

V. What you are going to do

Assignment: The following are short paragraph sketches of four recent films that raise issues related to the "virtue of vengeance." Your job is to identify in each the constraints to the project of vengeance: communication, authority, desert, and proportionality

- Did the vengeance enacted properly interpret and respect the constraint?
- Does this project exhibit a paradigm instance of vengeance or one that fails to satisfy one or more of the virtue's constituent constraints?
- Can this situation be re-imagined as an opportunity for moral repair?
- How could moral repair be carried out in this movie's circumstances?

Once Upon a Time in the West.
In this movie Harmonica (played by Charles Bronson) seeks revenge on Frank (played by a blue-eyed Henry Fonda). In the final shoot-out between the two, the camera pans in on Harmonica's eyes as he remembers Frank's past wrongful action. Does the act of revenge carried out by Harmonica satisfy the constraints of the virtue of vengeance?

The Untouchables.
Frank Nitti, Al Capone's right hand man, kills Eliot Ness' friend and colleague, Jim Malone (played by Sean Connery). After chasing him through the courthouse, Ness captures Nitti and is about to turn him over to the authorities when Nitti admits to killing Malone and then brags about he is going to "beat the rap." Ness pushes him off the roof, taking Malone's vengeance into his own (Ness') hands. How does this act of vengeance stand in relation to the constraints of vengeance?

Death and the Maiden.

Margaret Urban-Walker discusses this play by Ariel Dorfman in her book, **Moral Repair**. Paulina Escobar was raped by a doctor during the period in Argentina when that country was ruled by the dictatorial military junta. Although she never saw his face, several years later she faces a man whose voice, she is sure, reveals him as her previous tormentor many years earlier. She attempts to restore her self-respect by getting him to admit his crime and also to force him to see his crime from her perspective. Dorfman's play raises the question of whether vengeance ultimately defeats itself. It also provides an interesting pivot to transformative anger. It is not clear (1) whether Dr. Miranda is actually the one who raped Paulina and, upon admitting his crime, has been readmitted to the moral community or (2) whether he plays the role of the target of vengeance to help Paulina (out of compassion?) to recover her self-esteem.

Invictus.
This movie (starring Morgan Freeman as Nelson Mandela) is based on the book Invictus (originally Playing the Enemy) written by John Carlin. Mandela uses rugby and the South African team, the Springboks, as an occasion to reconcile White South Africans with the ANC (the African National Congress). Nussbaum treats Mandela's actions as a paradigm example of transitional anger; Mandela moves beyond anger and payback over his unjust imprisonment toward moving ahead and bringing about a new South African in which Whites and African Nationals are reconciled. Examine this movie in terms of the elements of moral repair mentioned above. Do the actions of Mandela toward the Springboks hold wrongdoers responsible, restore self-respect, reinstate undermined moral standards, and bring wrongdoers back into the moral community?

VI. Reflections on what you have learned

Consider the following statement from Keeton and Keeton in their lawbook, Torts: Cases and Materials (p. 1-2): "A primary purpose of criminal law in primitive times was to exact revenge or retribution from the offender appeasing the offended; other purposes, which over the centuries have gradually come to the forefront, are to prevent offenses and to reform and rehabilitate offenders."

Or consider the following passage from Holmes' The Common Law (p. 2) "It is commonly known that the early forms of legal procedure were grounded in vengeance. Modern writers have thought that Roman law started from the blood feud, and all the authorities agree that the German law begun in that way. The feud led to the composition, at first optional, then compulsory, by which the feud was bought off."

Questions for reflection

1. Cite practices from blood feuds that would now be considered tribal or barbaric.
2. Take practices common in modern common law, especially criminal and civil law. How can these be taken as different ways in which blood feuds and other primitive practices have been "civilized?" Consider in this context, rules of evidence, the roles of judges and juries, and key concepts like mens rea, actus reus, negligence, and even the concept of tort.

VII. Works Cited

Philosophical Approaches

1. Aristotle. **Rhetoric** (Rhys Roberts translator) See Book II for profiles of fear, anger, compassion (eleos), envy and hope. I have centered the account of anger on Aristotle's treatment with selected elaborations taken from Nussbaum and French. This translation of Aristotle's Rhetoric can be found in The Basic Works of Aristotle, editor Richard McKeon. New York: The Modern Library, 1941.
2. Nussbaum, M. 2016. **Anger and Forgiveness: Resent, Generosity, Justice**. Oxford: UK: Oxford University Press. Citations are taken from the Kindle edition which has only the location. Nussbaum discusses payback anger, status anger, and transitional anger. She also distinguishes the moving forward of transitional anger from the more reprospective perspective of forgiving.
3. Nussbaum, M. (2001). **Upheavals of Thought: The Intelligence of Emotions**. Cambridge, UK: Cambridge University Press. Nussbaum sets forth an earlier version of the appraisals of anger on page 29.

4. French, P. (2001). **The Virtues of Vengeance**. Lawrence, KS: University of Kansas Press. French uses cowboy westerns to highlight the different elements of vengeance cited here as authority, desert, proportionality, and communication.
5. Urban Walker, M. (2005). **Moral Repair: Reconstructing Moral Relations After Wrongdoing**. Cambridge, UK: Cambridge University Press. Urban Walker discusses moral repair in the context of moral responsibility, trust, and hope. I have used her characterization of moral repair to add content to Nussbaum's notion of transitional anger; by seeking to restore the victim as well as community standards attacked by the wrongful act, moral repair fixes the damages and harms produced by the wrongful act and even to restore the wrongdoer to the moral community. It, thus, represents a means of moving forward in the context of anger rather than moving backward through payback and status anger.

Psychological, Legal, and Literary Approaches

1. Holmes, O.W. (1881/1991). The Common Law. Mineola, NY: Dover Publications: 1-2. In the Metaphysical Club, Luis Menand provides an outline of the life and writings of Oliver Wendell Holmes as a pragmatist. In the Common Law Holmes argues that the law is explicated not through logic or a priori theory but through experience. His notion of experience is essentially that of James and Dewey both of whom he knew and corresponded with. Consequently, one can use Holmes to make the general case that the history of the law is, at least in major part, a series of emerging practices that seek to civilize and regulate the emotion of anger. The quote given in the section above demonstrates this clearly. Law practices cannot be reduced to the primitive reactions of anger and other moral emotions; clearly Holmes does not present a reductive accounting of the history of the law when he sets about discussing its primitive antecedents. But legal practices are continuous with these earlier practices although not reducible to them. The law has evolved and the trajectory of this evolution displays the emergence of things clearly innovative and new.
2. 7. Keeton, P. and Keeton, R. (1977). Cases and Materials on the Law of Torts, 2nd ed. St. Paul, MN: West Publishing Co.: 1-2. This

casebook in law is still used in many law schools. At the beginning of this text, the authors present a brief history of the law that focuses on the origins and emergence of tort.

3. Dorfman, A. (1992). La muerte y la doncella (Death and the Maiden). New York: Siete Cuentos Editorial. The Spanish edition was first. Margaret Urban Walker uses this, not as an example of moral repair—Paulina, after all, seeks revenge from the doctor. But it does provide a good example of both the intended goal of a project of vengeance as well as the difficulties of carrying it out. While the end of the play is not clear, Dorfman does leave open the possibility of moral repair in the future.
4. Carlin, J. (2008). Invictus: Nelson Mandela and the Game that Made a Nation (Playing the Enemy). New York: Penguin Books. Carlin's book was renamed after the emergence of the popular movie of the same name. Mandela's solution to the difficulties of anger and payback is both subtle and complex but highly effective due to his own personality. He became, in his own life and example, a paradigm of transformative anger.
5. Lewis, D. (1998). Guilty by Reason of Insanity: Psychiatrist Probes the Minds of Killers. New York: Random House. Lewis has interviewed countless individuals awaiting execution on death row. Her findings indicate that many committed their unspeakable crimes because of brain injuries that prevented from appreciating the moral implications of their actions. Lewis' is the basis of the character Agentha in Bryony Lavery's play, Frozen.
6. Fingarette, H. (1971).. The Meaning of Criminal Insanity. Berkeley, CA: University of California Press. Fingarette's influential analysis of the different criteria used in the law to identify criminal insanity provides a plausible reconciliation of the cognitive test (inability to appreciate the moral quality of one's actions) and the volitional test (inability to form one's will in accordance with moral salience). These two tests are integrated in Fingarette's definition of sanity as "responsiveness to relevance."

Compassion: Well-Being, Capabilities, and Appropriate Technology
This module unpacks compassion through its constitutive appraisals of size, nondesert, and circle of concern. Cultivating moral emotions such as compassion is accomplished by identifying and removing bias from the emotion's appraisals and the underlying theories that support these appraisals. Compassion can play a key role in reengaging STEM students with issues of social, ethical, and global import. According to Erin Cech, meritocracy is an ideology adopted by STEM students in their undergraduate education that prevents them from empathically engaging with those suffering from sizable, undeserved misfortune. Cultivating compassion counteracts this disengagement. Studying compassion's underlying theories also promotes reengagement. These underlying theories include a theory of the value of external objects, a theory of moral responsibility, and a theory of the importance of others to one's own well-being. In this module, you will study compassion by exploring its constitutive appraisals and by examining the supporting theories of well-being, justice, responsibility, and autonomy. This module has been developed through the National Science Foundation grant, Cultivating Responsible Wellbeing in STEM: Social Engagement Through Personal Ethics. (NSF SES 1449486).

Introduction

The Good Woman of Setzuan

- In Bertholt Brecht's, The Good Woman of Setzuan, the gods give Shen Teh money to start a new business; they give this gift in recognition of her goodness and compassion. But the very qualities that the gods have praised have also undermined her ability to operate that business successfully. Unscrupulous suppliers overcharged her, dishonest customers took merchandise without paying, freeloading families moved into the backroom without paying rent, and her landlord demanded unreasonably high rent. Shen Teh's goodness and compassion, it seems, have rendered her incompetent in business.
- Read Brecht's play and discover the secret behind its two key characters, Shen Teh, characterized by goodness and compassion, and her cousin, Shui Ta, the epitome of the ruthless business practitioner.

Brecht’s central problem is the compatibility of business and compassion. Is Shen Teh doomed to fail as an entrepreneur because she is too good and compassionate? Does "doing business" transform one into an entrepreneur like Shui Ta who sets compassion aside while maximizing profits and self-interest?

- Emotions according to Martha Nussbaum “imply intentional thought or perception directed at an object (as perceived or imagined by the person who has the emotion) and some type of evaluative appraisal of that object made from the agent’s own personal viewpoint.” (Nussbaum, Anger, Appendix A, loc 5440). To understand compassion as an emotion, we must (1) identify its object, (2) describe its three appraisals (size, nondesert, and eudaimonism) and (3) situate the emotion within the corresponding virtue of compassion which steers the emotion along the right path by deploying supporting perceptions, beliefs, attitudes, understandings, habits, and dispositions. The virtue of compassion directs the emotion toward the mean between the extremes of too much and too little, between excess feeling that results in compassion burnout and defective feeling that causes indifference and apathy.

This is one of a series of modules that looks at key moral emotions and how they enter into the world of business. Compassion will be examined in terms of its object, constitutive judgments or appraisals, surrounding virtues, and supporting theories. In particular, compassion rests on theories of responsibility and well-being.

What you need to know: Compassion as an Emotion and as a Virtue

Compassion appraises the impact of the undeserved, sizable suffering of others on one’s well-being.

Aristotle defines compassion as **“a feeling of pain caused by the sight of some evil, destructive or painful, which befalls one who does not deserve it, and which we might expect to befall ourselves or some friend of ours, and moreover to befall us soon”** (Rhetoric, 1385b13 ff.). Nussbaum’s definition is more concise: **“Compassion…is a painful emotion directed at another person’s misfortune or suffering”** (UT

305). The difference between these two definitions is that Nussbaum treats "similar possibilities," not as a constituent of compassion, but as a motive for it. Similar possibilities is the idea that I could suffer from what others are suffering because I share with them certain key vulnerabilities. Similar possibilities is expressed in the common sentiment, "there but for the grace of God go I." Nussbaum's broader account of compassion allows one to empathize with others even when one does not share in their vulnerabilities.

Compassion's Object: the sizable, underserved, suffering of significant others

Compassion's external object, then, is the undeserved, sizable suffering of others. The characteristic external object of an emotion serves to differentiate it from other emotions; these objects can be characterized in terms of their **temporality, valence, and modality**. Compassion's object is in the present (the suffering of others is occurring now), negative in its valence (this suffering diminishes the well-being of the sufferer), and actual (as opposed to possible or necessary). The object of compassion (the undeserved suffering of others) is appraised in terms of its impact on the well-being of the person experiencing the emotion. Because others enter into an individual's scheme of goals and projects—his or her very identity—they form a part of that individual's "circle of concern."

Compassion relies on three judgments or appraisals:

Here is a description of each of compassion's constitutive appraisals: size, nondesert, and eudaimonia (Nussbaum, UT and Aristotle, Rhetoric):

Appraisal One: Size

- "First, there is a thought of seriousness: in experiencing compassion, the person who feels the emotion thinks that someone else is suffering in some way that is important and nontrivial." (Political Emotions 142). Drawing the line between serious and trivial misfortunes is difficult. Clearly, death and catastrophic illness are serious or sizable. But what about suffering from a traffic jam, a boring lecture, or being struck with an obsolete smart phone? These misfortunes are not sizable by nature but can they become so by convention?
- Aristotle grounds his list of sizable misfortunes in his view of human nature. For Aristotle, humans are social animals. Each of these

misfortunes attacks the animal nature of humans (illness attacks the body) while lack of friends undermines the need of an individual to construct social relations with others. Here is Aristotle's list of sizable misfortunes:

- **"Death, bodily assault, or ill treatment, old age, illness, lack of food, lack of friends, separation from friends, physical weakness, disfigurement, immobility, reversals of expectations, absence of good prospects"** (Nussbaum, Upheavals of Thought, 86 and Aristotle's Rhetoric, A6-13)
- These misfortunes negate potentialities that constitute central human capabilities; fulfilling these capabilities is necessary for well-being. Capabilities, as will be seen below, are "beings and doings" that characterize a full life of human dignity. In the "good life," individuals are free to realize these capabilities in whatever way they choose. Misfortune arises when the expression or realization of key capabilities is blocked through an individual's handicap or because the environment withholds necessary and useful affordances.
- Candice Clark in Misery and Company provides a list of things that are misfortunes through convention:
- **"poverty, a partner's infidelity, death of a loved ones,…illness (including "functional" or behavioral illnesses such as alcoholism and drug use), physical or mental disabilities or deformities, injury and pain, war trauma, sexual abuse, physical abuse, crime victimization, disaster victimization, (e.g., by earthquakes, hurricanes, airplane crashes), homelessness, infertility, divorce (or loss of partner), discrimination (e.g., in jobs or housing), political victimization (e.g., liberties abridged by tyrannical government), role strain (e.g., single parenthood), unwanted pregnancy, physical unattractiveness, car accidents, car trouble, house trouble (e.g., leaky roof), insensitive parents, ungrateful children, social ostracism, loss in competition (e.g., sports or job), depression, fear, public humiliation, accidental embarrassment, fatigue, bad judgment, ruined vacations, boredom and discomfort (e.g., enduring heat, cold, and traffic jams)"** (UT 307).
- Clark's list moves from misfortunes that are unquestionably sizable to those problematically so. For example, are traffic jams really indicative of sizable misfortunes? Perhaps chronic traffic jams are

serious because they make it more difficult to move about in one’s socio-technical surroundings (undermining the capability of bodily integrity), and they may have long term negative health effects (undermining the capability of bodily health).

- What constitutes a sizable misfortune depends on context, for example, on whether an individual’s socio-technical environment offers or withholds affordances crucial to the realization of human potentialities or capabilities. The importance of context makes it difficult to separate what is a misfortune by convention from what is a misfortune by nature.

Appraisal Two: Nondesert or nonfault appraisal

- “Second, is the thought of nonfault: we typically don’t feel compassion if we think the person’s predicament chosen or self-inflicted” (Political Emotions 142). According to this appraisal, compassion draws upon a common, shared conception of moral responsibility. F. H. Bradley understands responsibility through the metaphor of an individual being called upon to answer for his or her past actions. Imagine appearing before a moral court and defending your actions before this court and its judge. If the action is bad, you offer an excuse designed to get you off the hook, that is, to avoid or deflect blame.
- An agent is capable of answering for what he or she has done when: (1)The agent maintains personal identity over time (selfsameness); (2)The agent is able to appreciate the moral quality of his or her actions (moral sense or moral perception); (3)The agent's actions arise from choices made voluntarily and knowingly. As Bradley puts it, the source of the action is in the will of the agent (ownership). Excusing one’s conduct by pleading ignorance or compulsion is a way of disowning one’s actions.
- Bradley calls these “conditions of imputability” because they allow us to associate an action with an agent for purposes of moral evaluation, i.e., assigning praise or blame. Denying a condition of imputability creates an excuse. We deny selfsameness by the excuse, “You’ve got the wrong person—I didn’t do it.” The excuses, “I didn’t know what I was doing” or “I was forced to do it” deny ownership. Finally, we excuse children from being held responsible because they have not yet

reached the point where they can perceive and appreciate the moral qualities associated with their actions. Bradley's framework allows us to determine whether individuals suffer because they have been overwhelmed by circumstances or because they have brought about their suffering through their own intentional actions.

Appraisal Three: Eudaimonistic Judgment

Eudaimonistic Appraisal: "the eudaimonistic judgment [holds] that others (even distant others) are an important part of one's own scheme of goals and projects, important as ends in their own right." (UT 320). From the standpoint of "possessive individualism" (a view of the self as complete apart from others) this appraisal makes no sense; how can someone else's well-being fall under my "circle of concern." But if we take the view that our relations with others enter essentially into our identities and central projects, then it follows that their well-being is a subset of our individual well-being. This eudaimonistic judgment then presupposes a view of human nature that designates humans as essentially social (Grotius) or as social (or political) animals (Aristotle). This eudaimonistic judgment is key to experiencing compassion and directing this emotion to the right persons, on the right occasions, and to the right degree. It first requires viewing the human, not as an isolated atom cut off from others, but as essentially social. Second, as Aristotle points out, the perception of "similar possibilities" can serve as a motive for feeling compassion. I become interested in others who suffer because I share with them the same vulnerabilities; only a change in fortune or luck separates me from them. Third, compassion occurs when the suffering of others becomes concrete for me. Emotions bring concrete particulars to an individual's attention; they help us to attend to what is immediate as opposed to what is distant and remote.

A Sidebar on Human Nature

Possessive individualism holds that: **"cada persona es dueña de sus facultades y del producto de sus facultades sin deber por ello nada a la sociedad"** (Adela Cortina 299 summarizing C. B. MacPearson's Possessive Individualism). Each person is the owner of her faculties and the product of these faculties without owing anything for this to society. The eudaimonistic appraisal, again, goes against **possessive individualism**. It views the human individual as irreducibly social from birth. As was said just above, Aristotle conceives of the human being as a **social animal**. But he also characterizes the human as a **rational animal**: (1) by the term “rational,” he emphasizes the centrality of practical reasoning for human beings, the fact that human individuals have goals and aspirations, make plans that specify means and resources needed to reach these goals and aspirations, and then act skillfully and in complex ways to realize their goals and aspirations; (2) by the term “animal,” Aristotle draws attention to the fact that humans have bodies, perceive and move about, are vulnerable, and are constrained by their mortality. On Aristotle’s view, our relations to others enter into our personal identities; we find our identities through the friendships we have forged, the groups to which we belong, and the alliances we build with others. This social conception of human nature makes the eudaimonistic judgment both intelligible and necessary. I am concerned for others because their well-being overlaps with my own, and because their cooperation is necessary if I am to achieve my own well-being. (See Coeckelbergh cited below for more on human nature and the capability approach.)

A Non-Aristotelian Account of Compassion

- Judith Andre in Worldly Virtue turns to Buddhism to outline a somewhat different conception of compassion, both as an emotion and as a virtue. Instead of being a pain, compassion, in the Buddhist tradition, is more of a "flickering." This implies that compassion is appropriate even when an individual suffers from a misfortune that is less than sizable. In fact, under Buddhism all suffering is caused by becoming too attached to external objects over which we have no control. We feel compassion for others because they have fallen prey to a condition that besets all humans. When applied to health care, proper compassion balances concern and empathy with detachment and impartiality. Compassion enables the health care provider to feel with the patient, to share in his or her suffering, but not to the point where this feeling with interferes with the skillful exercise of professional judgment.
- This Buddhist conception of compassion also weakens the appraisals of size, nondesert, and eudaimonia. It may be appropriate to feel compassion for sufferings that are less than sizable, for sufferings that individuals have—at least partially—brought upon themselves, and for

individuals suffering from vulnerabilities not shared by others. As a result, Andre provides a more concise definition of compassion: "compassion as an emotion is a response to the suffering of a particular sentient being together with a desire to help." (Andre, Worldly Virtue, 68 and 75).

Compassion as a Virtue

- Compassion (the emotion) draws upon the skills and capacities embodied in the corresponding virtue so that one direct this emotion to the right objects, to the right degree, and on the right occasions. As with many other emotions, one must integrate compassion into its corresponding virtue to ensure that it functions properly. Virtues guide emotions by means of cultivated perceptions, understandings, attitudes, beliefs, dispositions, and habits. When functioning properly, these steer the emotion adroitly between the pitfalls of too much and too little. Too much compassion derails professional judgment and causes burnout. Too little blocks empathy and disengages the professional to the point that it undermines judgment. In short, compassion as a virtue is "the disposition to experience the emotion appropriately and a desire to help that is realistic" (Andre, **Worldly Virtue**, p. 75).
- Compassion as a virtue can also be characterized as the constellation of perceptions, understandings, mental attitudes, habits, and dispositions that, over the long run, help individuals to realize and sustain the internal goods constitutive of a social or professional practice such as engineering, medicine, business, or the law. When health care providers exercise compassion regularly and skillfully, they bring about the constitutive good of the medical profession, namely, health.
- Compassion is built upon empathy, the imaginative projection of the individual into the standpoint or role of another; this projection enables an individual to see a situation as another sees it (Sherman and Piper). Social psychologists have termed this skill, "role-taking" (G. H. Mead and David Lapsley), a skill that can be exercised properly or improperly. Empathy is successful when it avoids two opposite pitfalls, what Adrian Piper terms empathy's **"Scylla and Charybdis**." Scylla

and Charybdis were the mythical monsters between which Greek sailors had to steer in order to stay afloat. Compassion’s version of Scylla is **"self-absorption"**: "one's level of imaginative involvement is, at least on the face of it, insufficiently responsive to another person's real crisis—a predicament that demands a considered and fully attentive response." Compassion’s Charybdis is **“vicarious possession”**: "one's level of imaginative involvement is excessively responsive to an inconsequential possibility that can be prevented easily" (Piper 733). From this standpoint then, the mean between the extremes lies in balanced role-taking; excessive compassion fails when we become lost in the perspective of the other; defective compassion fails when efforts at projection remain stuck in the egocentric standpoint. The virtue of compassion steers the emotion between the extremes of role-taking, i.e., between the Scylla and Charybdis of empathic projection.

What you need to know: Theories of Well-Being

Compassion and "Correct Ethical Theories"

- Compassion as an emotion is feeling pain at the undeserved, sizable sufferings of individuals who fall under one's circle of concern. As a virtue, it consists of perceptions, understandings, beliefs, attitudes, dispositions, and habits that consistently steer the emotion between the extremes of too much and too little. But compassion also requires “correct ethical theory” as a foundation.
- In the following, Nussbaum argues for the importance of the supportive theories that underlie compassion (Upheavals of Thought 386): **The objection, as Adam Smith makes it, does not deny that compassion is a valuable emotion, based in central cases on true beliefs. The problem is that each of its judgments needs to be equipped with a correct ethical theory. The judgment of seriousness needs a correct account of the value of external goods; the judgment of nondesert needs a correct theory of social responsibility, the eudaimonistic judgment needs a correct theory of proper concern.**

- A correct theory of responsibility has already been outlined in the discussion of the second appraisal of compassion above. In this section, I wish to discuss the different approaches to well-being that underlie the appraisals of size and eudaimonism. Well-being can be understood as (1) desire fulfillment, (2) having desirable mental states, or (3) having access to goods or capabilities that compose an "objective list" (See Brey and Harris for details). Below is brief summary of each.
- After outlining these three approaches to well-being, I wish to conclude this section with a summary of Appropriate Technology and the Capability Approach. Appropriate Technology targets well-being through aiding the responsible choice of technologies while the Capability Approach enriches well-being by integrating considerations of justice and freedom (Oosterlaken).
- A note on sources: Harris and Brey outline objective and subjective approaches to well-being. Harris then moves on to discuss well-being in terms of the Capability Approach. Harris provides a particularly insightful revision of Nussbaum's list of 10 capabilities for use in engineering design. 1. Brey. P. (2012). "Well-being in Philosophy, Psychology, and Economics." In P. Brey, A. Briggle, and E. Spence (Eds.) **The Good Life in a Technological Age**. New York: Routledge: 15-34. 2. Harris, C.E. (2015). "Engineering Responsibility for Human Well-Being," In C. Murphy et al. (Eds) **Engineering Ethics for a Globalized World**. Switzerland: Springer International Publishing: 91-107. Ingrid Robeyns discusses the Capability Approach in two articles: . Appropriate Technology is discussed by Ernst Schumacher in **Small is Beautiful** and Kelvin Willoughby in two sources, his book on this topic, **Technology Choice**, and a more recent discussion in Willoughby 2005.

Desire Fulfillment

In approaches that designate well-being as Desire Fulfillment "well-being is having one's preferences fulfilled" (Harris 95). This approach lacks "critical force" because it takes preference statements at face value. Harris here may be referring to Sen's discussion of preference deformation where victims of misfortune, injustice, and oppression dial their preferences down to what circumstances allow. For example, in well-being surveys carried out in

India, women report that they are more satisfied with their lives than men. But this flies in the face of what we know about their lives; women are, in many instances, reduced to property, forced to marry as children, prohibited from working outside of the home, and subjected to domestic abuse. (Consult Nussbaum’s profiles of Vasanti and Jayama in **Women and Development** and **Creating Capabilities** for real life examples.) It is not that women are more fulfilled or that they have achieved higher levels of well-being; it is rather that they have lowered their preferences and desires to reflect what is achievable in the face of highly constraining objective circumstances.

Mental State Approaches

- Another subjective approach states that “well-being is having desirable mental states.” Nozick both explains and criticizes mental state approaches with a thought experiment (Nozick, **Anarchy and State**). Suppose that we can choose to be hooked up to an "experience machine" in which "our brains are connected to electrodes so that we can stimulate them to produce any experience we want” (Harris 95). This poses the question: “Would we choose to be hooked up to the experience machine if offered the opportunity?” If we answer “yes” then well-being would be nothing more than the experiencing of pleasant mental states. But the fact that many of us would answer “no” implies that well-being is more than just the experience of pleasant mental states; it involves understanding, meaning, and genuine encounters with others.
- This is captured nicely in the movie, **Matrix**. Cypher laments having chosen the red pill that pulled him out of the matrix and into the real world. He chooses, instead, to be re-plugged into the Matrix. But others (Neo, Morpheus, Trinity) elect to remain in the real world and do so aware of both alternatives.
- A world characterized by artificially generated and pleasant mental states should be automatically preferred were well-being reducible to mental states. But those aware of both alternatives, the real world and the experience machine, often choose the real world. This informed choice shows that well-being is much richer and more complicated than the portraits provided by the mental states and desire fulfillment approaches.

- Mental states and preference approaches to well-being are subjective. From this standpoint, it is difficult to deal with the problems of partiality and bias. Harris puts it this way: "**Preferences must not be naive and untutored but rather the result of fully informed rational deliberation**" (Harris 95). To consider candidates for this more "fully informed" and reliable account of well-being, we turn to what Harris and Brey call "objective accounts" of well-being.

Objective List Approaches

To begin, one group of objective approaches holds that "well-being is the possession of some set of goods that are seen as intrinsic constituents of well-being." For example, Derick Parfit provides a list of constituents of well-being that includes "moral goodness, rationality activity, development of one's abilities, having children and being a good parent, knowledge, and awareness of true beauty" (Harris 96 quoting Brey 19). Harris cites other lists. John Rawls approaches well-being through what he terms "primary goods." Acquiring these "resources" is deemed necessary for well-being.

Rawls and Primary Goods

- In his famous work, **Theory of Justice**, the philosopher John Rawls offers an objective list of what he calls "primary goods." These emerge out of a thought experiment. Suppose a group of rationally self-interested individuals got together and negotiated an agreement (a social contract) that would define the terms of their future cooperative relationship. Add to this thought experiment, two further conditions. First, the individuals entering into this negotiation would have no knowledge of the specific circumstances of their future participation; Rawls calls this a "veil of ignorance." The negotiations would be carried out under conditions that suspend knowledge of physical and mental attributes (natural talents) and future social circumstances (future position on a social hierarchy). Second, assume that each party to the negotiation is rationally self-interested and define this as motivated by the goal of maximizing access to what Rawls terms "primary goods." This means each party to the negation would seek to maximize well-being since, for Rawls, primary goods constitute well-being. Rawls claims that these two assumptions would drive the social contract toward an impartial view of distributive justice, that is, justice as fairness: rational self-interest + veil of ignorance = justice as fairness. Negotiators would seek to cover all options; should they turn out rich or generously endowed with natural talents they would want a system of distribution that would reward these qualities; but should they turn out poor and handicapped, they would want a system of distribution that would secure well-being even with this range of possibilities.

- Here is a list of the primary goods Rawls identifies. They are primary because securing them is necessary for achieving well-being. The rationally self-interested parties to the social contract are motivated by the goal of maximizing their access to these goods. Rawls' list includes... **• Wealth and income • Opportunities and Powers • Rights and Liberties • Self-Respect**
- Negotiating for a system that distributes these primary goods under a veil of ignorance constrains the parties to the contract in the direction of impartiality. Rawls draws two fundamental principles of distributive justice from this thought experiment:
- • ELP = Equal Liberties Principle: **"First: each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others." "The basic liberties of citizens are, roughly speaking, political liberty (the right to vote and to be eligible for public office), together with freedom of speech and assembly; liberty of conscience and freedom of thought; freedom of the person along with the right to hold (personal) property; and freedom from arbitrary arrest and seizure as defined by the concept of the rule of law.**" (Rawls, A Theory of Justice, pp. 60-61)
- • DP = Difference Principle: "**Second: social and economic inequalities are to be arranged so that they are both (a) reasonably expected to be to everyone's advantage [most especially to those most disadvantaged] and, (b) attached to positions and offices open to all….**" (Rawls, A Theory of Justice, pp. 60-61) One further point on the difference principle requires emphasis: "**social and economic inequalities, for example inequalities of wealth and authority, are just only if they result in compensating benefits for everyone, and in particular for the least advantaged members of society.**" (Rawls, **A Theory of Justice**, 14-15.)

- Rawls treats primary goods as the ends of social cooperation. Hence, they form the constituents of well-being and any system of justice seeks to provide for a fair distribution of these assets among all the parties to the social contract. On the other hand, Nussbaum and Sen treat primary goods as means to be used by individuals to realize capabilities. Capabilities represent powers or capacities that humans have that enable them to convert primary goods (as means) into active functionings. On both accounts, then, primary goods are important to well-being. For Rawls, primary goods are ends in that they are the primary constituents of well-being. On the other hand, for Sen and Nussbaum, primary goods are means; they stand as resources that can be used to convert capabilities into functionings.

Appropriate Technology

- Since technology provides means for realizing human goals and aspirations, it turns out to be a major factor in achieving well-being. The Appropriate Technology (AT) framework discusses how we achieve well-being through responsible and strategic technological choice. This section will outline the general and specific senses of Appropriate Technology and discuss the framework adherents of this view use to accomplish responsible choice in appropriate technology.
- In its **positive sense**, AT assesses the fitness of a technology to a particular STS (socio-technical system). Fitness, here, can be understood in an ecological sense; the technology chosen should be compatible with the parts and the whole of the STS into which the technology is to be enacted. As Willoughby puts it, **“An appropriate technology is defined here as a technology tailored to fit the psychosocial and biophysical context prevailing in a particular location and period**” (Kelvin Willoughby, "Technology Choice: A Critique of the Appropriate Technology Movement," ITDG Publishing, p. 19).
- In its **negative sense**, AT highlights how the values designed into technology can come into conflict with those embedded in the surrounding STS. These conflicting values make it less likely that the technical artifact will be successfully enacted. For example, a bicycle works well in a socio-technical environment that offers paved roads

and bicycle lanes but fails in environments where these affordances are absent, e.g., in undeveloped, sandy deserts. To take another example, cars require an infrastructure of paved highways, gas stations, automobile insurance, and automobile repair facilities. They also require individuals who possess the skills necessary for safe driving and universally recognized "rules of the road." Without these supporting structures and without a set of appropriate skills possessed by humans who drive cars, they (cars) would fail to perform according to their designed function. Willoughby captures this idea nicely in the following: **"The inappropriateness of technology may stem from its being deployed in a context quite different to that for which it was designed, or it might be manifested in the harmful effects of technology upon class of people despite its appropriateness from the point of view of another class of people."** (TC 5-6)

- In its general sense, AT matches a technology's internal structure with the complexity of the surrounding socio-technical system. If we identify three levels of socio-technical complexity (early, intermediate, and advanced), then we can sort out technologies into three corresponding groups: (1) those complementing basic levels of socio-technical complexity, (2) those complementing intermediate levels of socio-technical complexity, and (3) those complementing socio-technical systems that are highly complex and sophisticated. Since technologies influence the development of a STS, it is necessary to choose a technology whose level of complexity complements those of its surroundings. Integrating a sophisticated and complex technology into a simple and primitive STS can bring about disruptive results. The case outlined below, "Drop by Drop," provides an example of a technology (and an associated practice) that has disrupted the surrounding socio-technical structure. Successful technological choice and individual and social well-being depend on fitting the technological artifact to its specific, socio-technical surroundings.
- We can distinguish general and specific senses within the AT concept. According to Willoughby, Appropriate Technology in its general sense **"emphasizes the universal importance of examining the appropriateness of technology in each set of circumstances"**(Willoughby 2005, 21. Quoted by Oosterlaken 2013, 119). Oosterlaken adds, **"the general principle approach makes no**

choice yet for one or the other type of appropriateness, it just claims that appropriateness is a very important consideration in all our dealings with technology.” This implies that the most appropriate technology may not be the most advanced; instead it is likely to be intermediate between primitive and advanced. Technology choice should be made in a such a way as it places the targeted STS along a value-positive trajectory.

Appropriate Technology in its Specific Sense

The specific sense of Appropriate Technology uses specific criteria to assess an artifact’s fitness to its socio-technical surroundings. One list, introduced by Ernst Schumacher in Small is Beautiful and reaffirmed by Oosterlaken is the following: “In this second approach appropriate technology is given a fixed and specific interpretation, for example ecologically sound, easy to use, low-cost, low-maintenance, labor-intensive, energy efficient, etc.” (Taken from Oosterlaken et al. “Marrying the Capability Approach, Appropriate Technology and STS: The Case of Podcasting Devices in Zimbabwe,” 119-122). Here is a description of six specific criteria:

- **Simplicity.** Simplicity, generally, is the emergent characteristic of technical artifacts whose parts stand in linear relations and are loosely coupled. Complex technologies, as Charles Perrow emphasizes, are composed of systems that are “tightly coupled” and “non-linear.” A tightly coupled system is subject to cascading accidents because breakdowns cannot be isolated; a problem in one component can spread rapidly to the other components with which it is linked. Tightly coupled components also resist analysis using models of linear causality: one event causes another only when the surrounding system is in a certain state. Complexity produced by systems that are tightly coupled and subject to nonlinear causal processes make them difficult to control. This leads Charles Perrow to argue that nuclear reactor technology should be rejected because its complexity renders it especially vulnerable to chain reaction accidents. (See Charles Perrow, Normal Accidents, Living With High-Risk Technologies, Basic Books, 1985.)

- **Decentralized.** Willoughby and Oosterlaken both discuss this important criterion. The activities of designing, manufacturing, operating, and decommissioning technologies should,--other things being equal—be distributed across several different agents and locations. This is important to Amish communities when they set about choosing technologies. They have chosen not to avail themselves of electrical power produced by highly centralized electric utilities; small communities are not able to exercise economic and political power sufficient to counter what can be marshalled by these highly centralized conglomerates. For this reason, the Amish fear that such centralized technologies would overwhelm and undermine their ability to create and maintain community values such as humility, equality, simplicity, and community (Wetmore, "Amish Technology: Reinforcing Values and Building Community," IEEE Technology and Society, Summer 2007, 11). Connecting to a centralized system raises the specter of the technological imperative (where human activity is subordinated to imperatives for maintaining technical systems) and reverse adaptation (where human individuals adapt themselves to bring about and serve machine needs rather than vice versa). The central point here is that simple, decentralized technologies are easier to control and direct. (Langdon Winner discusses the technological imperative and reverse adaptation in Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought, MIT Press, 1978. See also John Ladd. (1991). Bhopal: An Essay on Moral Responsibility and Civic Virtue. Journal of Social Philosophy, 22(1): 73-91.)
- **Labor Intensive.** Automation is beneficial when we are able to delegate demanding and risky tasks to machines. For example, it is wiser to use hydraulic jacks to lift heavy objects than to attempt to do so using only the powers that can be summoned through the human body; the hydraulic jack magnifies the powers of the human body and makes it possible to expand the range of effective action. But automation can deskill, dehumanize, and alienate humans when it is pushed too far; it can deprive humans of the opportunity to develop their own natural skills and talents. Appropriate technologies are labor intensive in the sense that they encourage the development of "actor networks" where humans and machines combine in complementary

ways to complete tasks important for well-being. Machines should complement and enhance human activities rather than replace them.

- **Gentle in the use of resources.** This stands for resource use that is environmentally friendly and sustainable over the long haul. For example, wind turbines are more appropriate than coal-fired electricity plants because the former uses renewable resources (wind) while the latter depletes the finite resource of coal which is harvested by invasive mining. “Gentle in the use of resources” indicates methods of resource extraction and use that are environmental friendly and sustainable.
- **Serves people** (and not the other way around). This is another way of saying a technical artifact should be designed, operated, and disposed of deploying knowledge and skill that are within the capabilities of those living in the community in which it operates. Lewis Mumford would term technologies that serve people as “democratic” technics, and he distinguishes these from “authoritarian” technics. “My thesis, to put it bluntly, is that from late Neolithic times in the Near East, right down to our own day, two technologies have recurrently existed side-by-side: one authoritarian, the other democratic, the first system-centered, immensely powerful but inherently unstable, the other man-centered, relatively weak but resourceful and durable.” Democratic technics, by definition, serve people while authoritarian technics, again by definition, subordinate people to machine ends. The Amish make this an important consideration in their approach to responsible technology choice. In technology choice, the Amish strive to ensure that the chosen artifact does not displace or push to the side important community values and activities; technologies should support the community and its values rather than undermine and displace them.
- **Low cost and low maintenance** also relates directly to control. Fernandez et al. show how cost of operation and ease of maintenance turns out to be critical factors in the successful implementation of micro hydro power plants in a developing communities. The Chucura Project constructed for a rural community near La Paz, Bolivia, fell into disuse because it had been designed without local input; its operation was too expensive and its maintenance required skill and knowledge beyond what was available locally. On the other hand, this same technical artifact was successfully integrated in other

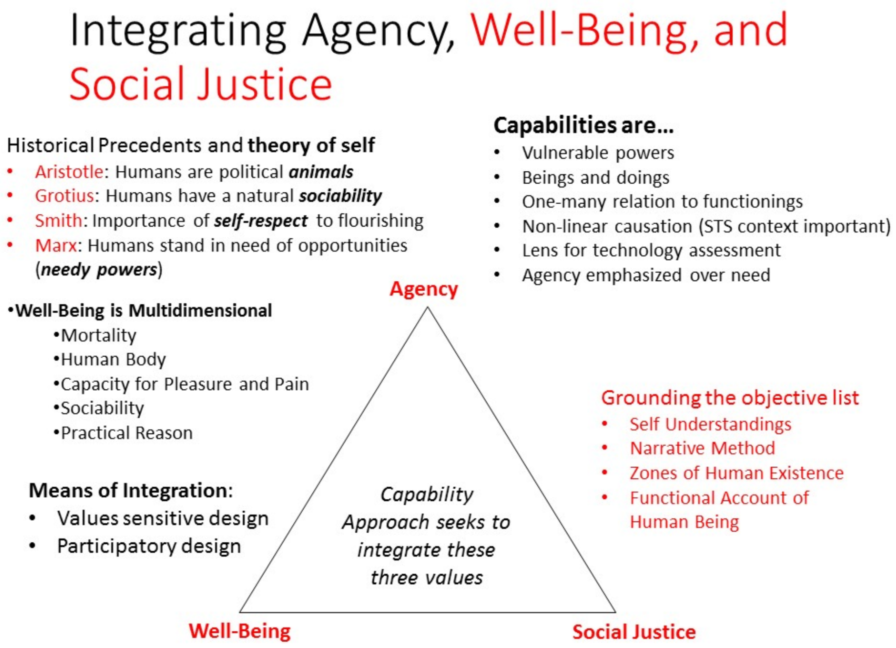
> circumstances because the involvement of local stakeholders helped to ensure that the enactment of the technology was commensurate with local resources and capabilities.

Appropriate Technology contributes to the understanding of well-being in that it provides a framework for technology choice that emphasizes fitting the technology to the surrounding socio-technical system. It steers us away from technologies that are disruptive and towards technologies that reinforce important values and enhance human capabilities. Finally, AT advocates choosing technologies that serve human ends rather than those that (due to complexity and centralization) supplant human values and subordinate human activities to technological ends.

Capability Approach: An Introduction

The Capability Approach to well-being picks up where Rawls left off. It avoids the pitfalls of the subjective approaches, especially the problem of preference deformation. And it recognizes the importance of primary goods but reinterprets them as means to ends that are spelled out in terms of central human potentialities. In fact, the Capability Approach can be summarized through six characteristics: capabilities consist of vulnerable powers, represent fundamental human beings and doings, stand in a one-to-many relation to functionings, exhibit nonlinear causality, provide a lens for technology assessment, and emphasize agency over need. The following image, called the Capability Triangle, provides a convenient way of summarizing this approach to well-being.

Capability Triangle



Integrating Agency, Well-Being, and Social Justice

Historical Precedents and **theory of self**

- Aristotle: Humans are political ***animals***
- Grotius: Humans have a natural ***sociability***
- Smith: Importance of ***self-respect*** to flourishing
- Marx: Humans stand in need of opportunities (***needy powers***)

Capabilities are…

- Vulnerable powers
- Beings and doings
- One-many relation to functionings
- Non-linear causation (STS context important)
- Lens for technology assessment
- Agency emphasized over need

•Well-Being is Multidimensional

- •Mortality
- •Human Body
- •Capacity for Pleasure and Pain
- •Sociability
- •Practical Reason

Means of Integration:

- Values sensitive design
- Participatory design

Grounding the objective list

- Self Understandings
- Narrative Method
- Zones of Human Existence
- Functional Account of Human Being

A Summary of the Capability Approach

- **1. Capabilities are vulnerable powers that make claims on the socio-technical environment for their realization**. This follows from an Aristotelian conception of humans as rational animals that realize themselves by performing certain essential activities. As Nussbaum puts it, “This [human] being comes into the world characterized by certain basic powers and by amazing neediness—by rich neediness … in the sense that the very powers of this being exist as needs for fulfillment and claim, for their fully human development, rich support from the human and the natural world” (Aristotelian Social Democracy, 243). Practical reasoning provides an excellent example. This capability consists of the power of setting goals then organizing preferences and desires as well as means and resources for the realization of these goals. But this important human capability is vulnerable; it must be developed through guided practice and it must be protected from disease, injury, and outside interference.
- **2. Capabilities are beings and doings. As beings they refer to well-being and states of flourishing and happiness.** For example, humans seek to be healthy. Humans also engage in activities (doings); they move about within their surroundings, acquire knowledge, engage in

aesthetic activity, and join with others to build social groups and organizations. Doings (acting within our surroundings to transform them) highlight the importance of agency, freedom, and choice to the Capability Approach. In this way, the Capability Approach provides the "correct theory" of well-being that supports the emotion and virtue of compassion. But it interprets well-being as the active exercise of characteristic human activities (beings and doings) rather than the passive enjoyment of consumables (often termed positional goods). Humans still have needs that must be fulfilled but these are reformulated as the "needy powers" that Nussbaum describes in the passage quoted above.

- **3. The relation between capabilities as powers and their specific realizations or functionings is a one-many relation.** Capabilities are general potentialities. But these potentialities can be actualized in different ways depending on an individual's strengths and weaknesses and on the ways in which surrounding STS constrains and enables activity. For example, humans can move (capability) in many different ways each of which can be termed a functioning: (1) riding a bicycle, (2) flying an airplane, (3) driving a car, (4) riding a horse, (5) walking, (6) running, (7) skating, etc. This one-many relation between capabilities and functionings is important for understanding agency and freedom. Freedom is a function of the ratio of capabilities to functionings; the more functionings available for realizing a given capability, the greater the scope and magnitude of freedom. The goal of development, under this view, becomes, not increasing the quantity of positional goods to be consumed by individuals, but multiplying the different ways people have of exercising agency by choosing and realizing capabilities.
- **4. Capabilities work through contextual, not linear, causation.** A (=capability) causes B (=functioning) only in context C (=STS that offers positive conversion factors). As Oosterlaken puts it in Technology and Human Development, **"The idea is that the conventional notion of causality ('if a then b") is replaced with a "contextual causality' in the sense of "x causes y' (in circumstances c). Individual capabilities are interpreted as a type of causal power in this view."** This is important for two reasons. First, implementing the Capability Approach as a measure of well-being requires

approaching well-being as a functioning within a system; it requires, in short, systems thinking. Second, if capability A cannot be realized through functioning B, then one must alter one's circumstances. One begins by examining how the surrounding STS constrains and enables the conversion of capabilities into functionings; then one identifies ways that individuals can empower themselves to multiply functionings and how surroundings can be altered so that they provide affordances for converting capabilities into functionings.

- **5. The Capability Approach is a lens for technology assessment.** The Capability Approach allows us to assess technology-driven development projects in terms of their impact on key capabilities. For example, consider the different technologies offered for energy generation. Amory Lovins groups these into soft and hard paths; soft paths are more environmentally friendly and use renewable resources while hard paths have more destructive environmental consequences and deploy non-renewable resources. Responsible technological choice in the realm of energy production could be driven by a framework that assesses different technologies in terms of their impact on capabilities like bodily health, bodily integrity, practical reasoning, other species, and control over environment. Energy generating technical artifacts, as they become enrolled into socio-technical systems, can be assessed in terms of how they constrain and/or enable the conversion of capability into functioning. Does burning coal lead to pollution that causes respiratory problems? If so, then it is capability-contracting in that it diminishes bodily health. Does the use of technologies that depend on renewable resources such as sun and wind lead to functionings that are more consistent with other species, i.e., have positive impacts on the surrounding natural environment? The Capability Approach provides a lens for technological assessment by measuring the impact of a technology on a framework of basic capabilities. Consider another example: the Gulf Oil refinery located in Cataño, Puerto Rico can be evaluated from the standpoint of the capability of bodily health. Those living near the facility (when it was in operation) suffered disproportionately from respiratory problems caused by the toxic emissions; the refinery, through its pollution, contracted or constrained the expression of the capability of bodily health. When the facility was decommissioned and converted into a storage facility, further problems were created by unsafe practices enacted by those in charge of maintaining the facility. As a result, an explosion occurred in October 2009 that destroyed 21 of the facility's 40 storage tanks. This explosion, connected to lapses in safety practices, clearly diminished the capabilities of local residences of life and health. Thus, working from a list such as Nussbaum's list, one can identify relevant capabilities and examine the impact of a technical artifact; one imaginatively projects it into a STS and determines whether it is capability-expanding or capability-contracting.

- **6. The capability approach emphasizes agency over need. In fact, the capability approach "provides a powerful conceptual framework to assess and evaluate technology in terms of" the values of well-being, agency, and justice.** (Oosterlaken, 9) Together, the 10 capabilities that comprise Nussbaum's list provide a general outline of well-being. Each capability outlines what it means to flourish within a particular "form of human life." Taken together, they outline a life of human flourishing and dignity. As mentioned above, there is a one-many relation between a capability and the corresponding set of functionings. The capability of movement can be expressed through many functionings; one can walk, skate, ride a bicycle, run, drive a car, take a train, and so forth. The conversion of a capability into a functioning requires the exercise of choice and agency. Thus each capability outlines a zone of agency and expresses freedom through choice. In other words, the capabilities approach has as much to do with agency and freedom as it has with well-being. Finally, capabilities can be formulated to outline a minimal threshold of social justice. A lifespan of 60 years (for life), breathable air (for health), and the ability to move by car safely and unhindered throughout one's living environment (for bodily integrity) would together lay out the beginnings of a threshold of minimum social justice. The Capability Approach makes it possible to assess energy generation technology in terms of their impact on the ability of individuals to maintain themselves above this minimum threshold. It provides a comparative basis where one could compare and assess different technical artifacts as well as different societies or communities.

A Sidebar on the Vulnerability of Practical Reasoning

- Damasio, a neurologist, studies patients who, due to injuries to certain regions of the brain, are unable to prioritize options and make choices and commitments. In his book, Descartes' Error, he studies two individuals whose ability to carry out practical reasoning was compromised by brain injuries. Both patients continued to exhibit intelligence; one tested well on IQ and other intelligence tests. Nevertheless, they were unable to make decisions because they were flooded with irrelevant or even bad alternatives and found themselves unable to filter, evaluate, and rank these possibilities. This inability to "prune the decision tree" has been termed the frame problem (De Sousa and Wallach and Allen).
- Damasio puts forth a "somatic marker hypothesis" to explain how normal individuals solve the frame problem. Alternatives that stand before individuals making decisions are "marked" with positive or negative emotional valences. This makes it possible to eliminate those marked negatively and helps individuals hone in on fruitful possibilities marked with a positive emotional valence. Wallach and Allen apply this hypothesis to developing robots with practical reasoning capabilities. Emotions help humans solve the frame problem by marking alternatives as good or bad based on past experience; robots would have to be designed with a similar mechanism that quickly marked and ranked decision alternatives. Here is how Wallach and Allen put it: **"Collectively…the somatic markers can also be seen as framing the territory of considerations that need to be factored into a judgment. A somatic marker system prunes the decision tree and thereby facilitates decision making. Looked at from another perspective, the network of interrelated somatic markers can be thought of as providing scaffolding on which the capacity for reason is built."** These markers, provided by emotions, help decision making by tagging present experiences with memories of past experiences, especially bad experiences. This, again, prunes the decision tree and helps decision makers who have brains hone in on exactly the most relevant and pertinent considerations.
- Practical reason uses emotion and perception to solve the frame problem. It is an essential human trait but is also vulnerable because it

> makes use of cognitive-emotional functions that are housed in particular areas of the brain and thus vulnerable to injury. Practical reason also requires favorable socio-technical surroundings. These surroundings provide affordances that help reasoning agents realize goals and execute plans. Should the surrounding environment withhold affordances or even manifest characteristics that block action, then practical reason fails to function. The Capability Approach captures all of these aspects: the vulnerability of human powers; the possibility of pushing back this vulnerability through the development of knowledge and skill; the importance of socio-technical surroundings which can either aid or impede the expression of capabilities.

A Sidebar on food security and bodily health

We can give a hungry individual a fish to eat; this would provide temporary satisfaction to the ongoing biological challenge of sustaining biological well-being. Food security is a capability and eating fish is a functioning of this capability. But the Capability Approach emphasizes multiplying the functionings that realize or express a given capability. So, instead of giving an individual a fish to eat, we can teach an individual to fish, thus, further empowering him or her by reducing dependency on our generosity. We can expand even further this capability of food security by providing affordances or conversion factors that magnify an individual's power to fish by giving him or her a boat, a fishing pole, a fishing net, and a wood-burning stove to cook the fish. Teaching individuals to fish and providing them with tools and technologies to fish with empowers because it increases the set of functionings that correspond to the capability of food security; there are now more ways to realize this capability. And the Capability Approach encourages us to think even further outside of the box: why restrict ourselves to eating fish when identifying the set of functionings that realize the capability of food security? Agricultural practices have expanded food security to include plants that have been altered to become better sources of food, different options for generating and consuming meat, along with techniques for growing and harvesting food in a long-term sustainable way. The point is that the Capability Approach identifies human needs and then reformulates these as powers or potentialities. Accompanying each capability are beings and doings which constitute functionings: specific activities that realize capabilities in concrete situations. The goal of development has been transformed from that of providing goods to temporarily solve needs (a short-term response that reinforces passivity) to that of expanding the capacity to act for oneself by increasing the set of functionings that can realize a given capability.

How to make a Capabilities Matrix

- A Capabilities Matrix allows you to compare two items in terms of their impact on a set of capabilities.
- Choose three to five targeted capabilities in terms of which you wish to compare the items at hand.
- Outline the range of functionings typically associated with each capability.
- Evaluate each of the items under consideration in terms of whether they multiply or decrease the set of functionings associated with each targeted capability.
- Note. Nussbaum’s list of 10 capabilities is a good place to start. But there are other capabilities lists. For example, Robeyns provides a useful list of 15 capabilities while Walker outlines key capabilities for education.

_How can Capabilities Lists be Validated

- In an article critical of Nussbaum’s list of capabilities (and of Nussbaum’s approach in general) Allison Jagger cites four methods used by Nussbaum to identify and justify the capabilities that are central to human well-being. What makes Nussbaum’s list of 10 capabilities objective? Nussbaum main argument here is that these ten capabilities belong to a “thick, vague conception of the good.” According to Jagger, Nussbaum uses four different methods to justify the capabilities she derives from this “thick, vague conception of the good.”
- 1. **Myths and stories.** What are the characteristics, traits, and qualities in terms of which we define the human being? Stories and myths helps us to answer this question by providing thought experiments in which we add or subtract qualities we use to define humans. For example, the heroes of Greek mythology, like Hercules, are given characteristics that make them super-human; Hercules is endowed with super-human

strength and immortality. Is he still human after being endowed with these qualities? Can an immortal being feel compassion for a human when it no longer shares human vulnerabilities? On the other hand, Homer’s mythical being, the Cyclops, resemble humans but they lack the key attribute of paidea, namely, the ability to behave in a civilized, educated manner. The question now arises as to whether beings that lack paidea but otherwise share human characteristics can still be considered human. If not, then paidea is an essential human characteristic and, under the Capability Approach, can be reformulated as the capability of education. How much can we vary this thick notion of humanness before it is transformed into something else, whether godlike or beastlike? These thought experiments resonate with recent research into the radial structure of thick concepts like humanness. We identify paradigmatic instances of these concepts and then work to draw analogies between these paradigmatic instances and those that are more problematic because they lack some of the characteristics of the paradigms. Myths and stories are not just diversions but tools that we use to explore the boundaries of thick moral, political, social, and economic concepts.

- 2. **Narrative method.** In Women and Development and again in Creating Capabilities, Nussbaum provides short narrative profiles of real individuals. Vasanti and Jayama, two severely oppressed women from India, are portrayed to outline a basic threshold of social justice. These profiles show individuals struggling to realize readily identifiable capabilities like “control over environment.” They also can be used to establish thresholds of well-being. Vasanti is deprived of the opportunity to go to school, is not allowed to have children, and cannot leave the house to work; she is physically abused by her husband. Jayama works in a physically demanding job, is paid less than men who perform similar labors, and is denied support when she is too old to work. These narratives provides concrete examples of humans who fall below the threshold of a minimally decent life. We can understand these thresholds in terms of capabilities; then we can outline these capabilities using indicators that allow us to specify when an individual has fallen below a key capability and thus deprived of dignity and well-being.

- 3. **Zones of Human Existence.** Stories, myths, case studies and personal profiles show reoccurring themes: mortality, the vulnerable body, sentiency (pain and pleasure), imagination, sociability, and separateness. We can use these themes to identify forms of human life or zones of human existence; capabilities then emerge as descriptions of what it means to flourish within each zone. This represents the most prevalent method Nussbaum used to identify capabilities in the late 1980s and early 1990s.
- 4. **Functional descriptions of human activities**. For the Greeks, each thing (not just living things) has its proper form of functioning. This functioning, a characteristic activity, represents the nature (physis) of the things in question. Capabilities form a set that gives us insight into the proper nature of the human being, not in the form of a static essence, but in the form of a series of activities or functionings through which this nature is realized. This functional description of the human being naturally lends itself to the language of the capability approach. Capabilities are human potentials and outline how to flourish in different zones of human existence. Functionings are the ways in which capabilities are realized in the here and now through specific activities carried out in specific contexts.
- A correct theory of well-being helps to guide the emotion of compassion between extremes of excess and defect. They are especially pertinent to the empathic projection that forms the core of compassion and help us avoid the pitfalls of this projection that Piper terms its Scylla and Charybdis. Subjective list approaches provide a good start; here individuals report on their perceptions of how their lives are going. But because these subjective approaches fall prey to preference deformation, they need to be further examined in terms of objectively established approaches to well-being such as Rawls' account of primary goods, Appropriate Technology with its emphasis on the fitness to socio-technical surroundings, and the Capability Approach with its emphasis on fundamental human activities, i.e., beings and doings that flesh out the abstract notions of flourishing and well-being.

What you are going to do

This section outlines four cases that raise issues pertinent to compassion and its three appraisals. Each case is accompanied by questions designed to help you explore issues suggested by these cases. You will also use a four-step framework to identify and reflect on how these cases raise issues pertinent to technical artifacts, socio-technical systems, appropriate technology, and capabilities. You will also be able to explore each case in more depth by consulting the links and sources provided.

Case Framework

This is a good place to mention the impressive work done on the Capability Approach by Ilse Oosterlaken. The metaphor in the framework below that has the student zoom in and zoom out from artifact to socio-technical surroundings is one of many example. Oosterlaken unpacks this metaphor in her book Technology and Human Development, Routledge, 2015. (See below for the complete reference.)

1. Zoom In

- 1. **Zoom-in.** Here you will focus on describing the technology, product, or service that serves as the focus of your case?
- Classify the focal object of your case study. For example, is it a social or technical artifact?
- Describe the structure of this focal object. What are its parts? How have these parts been put together?
- What is the function of the focal object in your case? For example, imagine that you are writing a user’s manual for this object. What procedures do we enact to use this object effectively in the intended environment?
- This framework for zooming in on individual technologies is taken from Vermass et al., The Philosophy of Technology (Morgan and Claypool publishers.) They distinguish between the structure of a technical artifact and its active functioning within a socio-technical system. (To get at a functional description, they recommend providing a “user’s guide,” that is a set of instruction on how to use the technical artifact in question.) They also hold that technical artifacts are inseparable from the socio-technical systems in which they operate.

This becomes clear when they discuss the socio-technical system within which the airplane is designed to function. Study also how they distinguish artifacts from natural objects.

2. Zoom Out

- 2. Zoom-out. What is the surrounding socio-technical system? Socio-technical systems have five characteristics.
- First, they are surroundings and circumstances that have considerable impact on human agency. This can be unpacked by understanding how they constrain action in some ways and expand or empower it in others.
- Second, socio-technical systems can be analyzed into sub-environments such as hardware, software, physical surroundings or geography, procedures, people/groups/roles, laws/statutes/regulations, and information systems? What are the sub-environments that compose a given socio-technical system, and how do these individually constrain and enable human action?
- Third, even though STSs have parts, these parts are interrelated and interact with one another. In other words, our socio-technical surroundings form systems and need to be approached through systems thinking. A clear example of how socio-technical surroundings take the form of systems and the important role played in these systems by feedback loops is provided by Peter Senge’s important book, **The Fifth Discipline: The Art and Practice of the Learning Organization**. In the Lover’s Beer example, we see how linear thinking ignores key feedback loops and thus leads to a breakdown in the coordination between customers, who create demand, and retailers, wholesalers, and manufacturers, who respond to demand. Senge uses this example when teaching organizational theory at MIT.
- Socio-technical systems embody values. Changes occur when the system or the technology is modified to resolve conflicts between the values of a technical or social artifact and those embedded in the STS. We can identify these conflicts through description and analysis of the interacting parts. We can also identify the different "localities” within a STS where a particular value is realized. For example, privacy may be

secured through physical modifications (doors and locks), norms, laws, and information practices.
- Finally, STSs change as a result of external causes such as interactions with other socio-technical systems. These changes trace out paths or trajectories. The goal of STS analysis is to discoverer or design ways to place a STS on a value-positive trajectory

3. Appropriate Technology

3. **Appropriate Technology.** Take the six criteria of Appropriate Technology and discuss the technology, product or service on which your case focuses. Is it (1) simple, (2) decentralized, (3) gentle in its use of resources, (4) serves people and not other way around, (5) low cost/maintenance, and (6) labor intensive? While a technical artifact can be assessed directly by discussing how it stands in relation to these criteria, it is often better to compare two or more artifacts in terms of these criteria. For example, how do cogenerating plants compare with wind turbines in terms of whether they are gentle in their use of natural resources?

4. Capability Approach

4. **Capability Approach**. From Nussbaum's list of capabilities, identify 4 or 5 that are pertinent to the case at hand. Identify indicators within each capability that can be measured. Does the artifact, service, or product enhance (expand) or contract the capabilities you have chosen? For example, one could identify five capabilities and use these to compare different energy generation technologies. How does cogeneration technology compare to wind turbines in terms of the capabilities of bodily health, other species, practical reason, affiliation, and control over environment. This comparative analysis—what I am calling a Capability Approach matrix—is more powerful than a discussion that applies capabilities to just one technical artifact. Capabilities can be further specified in terms of indicators. These measurable elements can be used to establish capability thresholds; falling below a threshold then indicates a failure in maintaining social justice and triggers the need to bring about remedial action. Severine Deneulin looks at well-being in a poor neighborhood in Buenos Aires, Argentina. She identifies capabilities like education and then provides different indicators that allow one to see key thresholds in education. One indicator, for example, is the percentage of

children in different neighborhoods who have graduated from high school. A key indicator for the capability of bodily health might be the percentage of individuals who have health insurance. In general, this section of the framework has you compare different technical artifacts in terms of whether they expand or contract capability "space."

Case Questions

1. Should the activity(ies) depicted in the case be allowed to continue?
2. What capabilities are in play in each case?
3. Working through these capabilities in terms of the case, are capabilities (individually and taken together) expanded or contracted?
4. Construct a capability matrix that compares the technology set forth in the case with a close competitor. (For example, if you were examining wind-generated energy in terms of the capabilities of life, health, other species, and control over environment, you might use these same capabilities to examine a likely competing technology such as oil-generated energy and then compare it to wind technologies. Which technology would come out on top using a set of relevant and pertinent technologies.
5. How close do the technologies you have used to make your comparison in the Capability Matrix come to articulating the constituents of well-being in the case at hand?

Asparagus Farming in Peru

- Severin Deneulin in **Wellbeing, Justice and Development Ethics** (The Routledge Human Development and Capability Debates) examines this case in some detail working from the link provided below. This provides an excellent example of what Judith Lichtenberg terms "new harms." These are harms that those living in prosperous nations inflict on others living in remote areas. Those causing the harms are usually unaware of this because these harms are wrought collectively rather than individually. My eating asparagus in Indiana in December does not harm subsistence farmers in Peru. But when my individual actions are aggregated with similar actions of others into substantially large collective actions, then the consequences taken at this level may be substantial. Globalization has made such collectivities possible; it stands for increased transportation and communication capabilities that, in turn, make it easier to draw individual actions together into collective action networks. Thus, globalization has created the need to recognize a new kind of sizable misfortune, namely, new harms. Issues of distributive justice loom large when we discuss new harms. In Drop-by-Drop, we see how consumers in the United States, Australia, the United Kingdom, and the Netherlands engage in consumption practices that benefit wealthy asparagus farmers in Peru at the expense of indigenous substance farmers in the mountains of that same country. New harms also pose challenges to those who seek remedial means. See Virginia Held's famous essay on when isolated individuals are responsible for joining together and acting in tandem to respond collectively to collectively-wrought new harms.

- Deneulin's discussion of this case shows (1) how pertinent the Capability Approach is to formulating problems of well-being such as those created by the emergence of new harms and (2) that well-being concerns quickly pivot to problems of regional autonomy and social justice. The indigenous farmers of Peru are certainly the subjects of compassion. (In working through why this would be the case, run the situation of these farmers through the three appraisals of compassion.) But they are also occasions for anger; is their suffering the result of intentional wrongful actions performed by others? Anger issues in two responses: vengeance (payback) and moving forward (bringing about moral repair) (Nussbaum). Which response is appropriate in this case? Should one respond with anger or compassion or both? Consult the module on anger published in Connexions ® to find out more about anger's constitutive appraisals. Note that the object of anger resembles that of compassion; each foregrounds sizable suffering but from different points of view. Your first item here

Here are some facts about asparagus farming in Peru:

- • The World Bank and the International Monetary Fund have promoted growing asparagus in dry regions of Peru as a cash crop to stimulate

the local economy and promote economic development.
- Three harms stand out: (1) the depletion of the water table in a particularly dry sector of South America, (2) the displacement of indigenous farmers because water they require is being diverted to irrigate fields of asparagus, and (3) a redistribution of economic costs and benefits in such a way that the indigenous inhabitants of these communities are alienated and marginalized. The net result of this project is exporting water from the desert areas of Peru to northern countries where water is plentiful.
- Exporting asparagus has promoted development for select segments of the Peruvian population at the expense of the economic well-being of other groups. While it has made it possible for consumers in Great Britain, the United States and the Netherlands to enjoy fresh asparagus year-around, this benefit has come at the expense of indigenous farmers and their small communities.

Collectively-wrought harms require organized, collective responses. If I stop eating asparagus, this will hardly improve the situation of indigenous farmers in Peru; the impact of actions that I can undertake by myself in this context is insignificant. On the other hand, if I organize with others and collectively we stop eating asparagus, then this boycott stands to have a substantial impact on asparagus growing in Peru. Just what this impact will be depends on a lot of factors which should be enumerated and debated. But Lichtenberg’s point is that there are occasions in which individuals become responsible for organizing into collectivities that can respond to new harms in a concerted, coordinated fashion. Lichtenberg draws on the work of Virginia Held to identify the conditions under which disassociated individuals are morally responsible for organizing and acting in tandem to respond collectively and effectively to a problematic situation. This general argument has strong implications for responding to global warming, political oppression, and economic inequality. Lichtenberg also discusses how important it is for consumer ethics where phenomena such as the “demonstration effect” (Dusenberry) and “ability signaling” (Cortina, Crocker, and Lichtenberg).

Making iPhones and Computers in China

- The radio program, **This American Life**, provides highlights from the popular dramatization performed by Mike Daisey on the plight of workers in Foxconn factories in China. These workers manufacture the components for Apple iPhones as well as the components for other ICTs (information and communication technology). Daisey designed his presentation to evoke compassion for Foxconn workers who endure long shifts, live in squalid dormitories, and work in factories that are unsafe and poorly ventilated. Listen to the excerpts from Daisey’s presentation to see if you can spot appeals to compassion’s appraisals of size, nondesert, and circle of concern.
- After broadcasting Daisey’s presentation, reporters for **This American Life** found that Daisey had fabricated many parts of his narrative, especially his description of his visit to Foxconn plants and interviews he claimed to have conducted with the workers in those plants. The URL below links to This American Life’s retraction of their previous broadcast along with a section where, under questioning, Daisey admitted to significant fabrications in his drama. At the end of the tape there is a short and illuminating interview with Charles Duhigg, a **New York Times** reporter who published a series of stories on the plight of workers at Foxconn. While Duhigg's reporting does not support many of the claims Daisey makes in his presentation, it does substantiate provide a general picture of deplorable working conditions at Foxconn. (Duhigg hedges on the issue as to whether these conditions merit a boycott of Apple products claiming in so many words that he is a journalist, not an ethicist.) Duhigg also provides an analysis of why Foxconn is so successful in manufacturing business components and how STS conditions in China are conducive to the efficient and profitable manufacture of computer and ICT components. As it turns out there are some very good reasons why Apple and other ICT components cannot be as effectively and efficiently manufactured in Silicon Valley as they are in China. Listen to the last part of **This American Life's** retraction and read the series published in the **New York Times** by Duhigg. Are workers at Foxconn legitimate recipients of our compassion? Should we be angry at their plight and the injustice it implies? Focus specifically on Nussbaum's characterization of compassion's “eudaimonistic” judgment. Even though they are distant

strangers, are Foxconn workers a part of our “circle of concern” and, therefore, the proper subjects of our compassion?

Here are some of the characterizations that both Daisey and Duhigg set forth about working conditions at Foxconn factories in China

- Foxconn workers have suffered from neurological damage after using n-hexane to polish the glass surfaces of Apple iPhones. This substance was used because it evaporates more quickly than alcohol and is, therefore, more efficient in the manufacturing process.
- Duhigg shows how Foxconn contributes, as a supplier, to Apple’s success. For example, they are able to respond quickly to design changes by retooling the machinery in one plant and then coordinating with other plants in the immediate vicinity to implement changes across the manufacturing process.
- Explosive fires produced by aluminum dust combined with improper ventilation to cause worker injuries and deaths from dust explosions and fires. What stands out is that Foxconn did not respond quickly to this easily preventable problem; they did not learn from the accidents that occurred. The aluminum dust was caused by workers polishing the aluminum containers of Apple devices; the accumulation of dust in dangerous concentrations in the air could easily have been prevented by the installation of cheap, ventilation fans. Yet it took multiple occurrences of this accident before Foxconn decided to respond to the problem.
- Foxconn workers endured harsh working conditions including excessively long work days and were frequently required to work back-to-back, 12-hour shifts. During this time they were required to stand or sit in chairs without backs. These conditions would not be tolerated in factories in the West; in many instances they violated the standards that Apple had set for their suppliers. What responsibilities do companies like Apple have for matters like the working conditions in the plants of their suppliers? Are they limited to setting standards? Can these standards be enforced? What leverage does Apple have over Foxconn that would allow it to enforce these standards? These and other questions arise in the context of the responsibilities Apple bears toward Foxconn workers. What are these and how can they be carried

out? In general, to what extent is it ethically permissible for companies like Apple to benefit from outsourcing much of their manufacturing to companies like Foxconn that present lower labor costs, provide greater flexibility and efficiency, and operate in nations with lower labor, environmental, and safety standards?

- Employees working at Foxconn are housed in unpleasant and crowded dorms. Worker suicides have been attributed to deplorable working and living conditions. What are Apple responsibilities for setting standards that prescribe decent living and working conditions? Apple argues that they have no such responsibilities because of the detailed monitoring and surveillance they would require, and because they have no right to dictate to their foreign suppliers how to operate their plants and manage their employees.
- What is the moral significance of the different health, environmental, labor, and safety standards held by the global north and the global south? Does the dictum, "When in Rome do as the Romans do?" apply here? Or are there transnational, moral standards that must be recognized and enforced by multinational corporations like Apple?
- Would you be willing to pay more for Apple products if this would help establish better working conditions for Foxconn workers? How much more? Duhigg argues that Apple consumers save anywhere from 10 to 65 dollars on the purchase of iPhones. Do these savings justify the means by which they are brought about?
- Is Daisey justified in fabricating some of the elements of his presentation, if he is doing so to make the case for compassion for Foxconn workers? The deplorable working and living conditions at Foxconn are generally true as Duhigg's reporting makes clear. But the particulars of Daisey's presentation are, for the most part, fabricated. Compassion requires specificity, that is, it requires telescoping the general, statistical reporting of Duhigg into the concrete images and events that form the subject matter of Daisey's presentation. Can Daisey's fabrications be justified as a necessary means to the moral end of evoking compassion for the plight of the Foxconn workers who manufacture the devices that we enjoy?

This is a complicated case. In the course, Introduction to Business, Management, and Ethics, it has been approached through an encuentro, a face-to-face discussion framed around whether Apple products should be boycotted to force Apple to exercise more control over its supplier, Foxconn. What is important is that there are serious and credible considerations on both sides of this issue. Should compassion be extended to Foxconn workers given their working conditions, their low salaries in comparison with those of us in the West, and the fact that many of them are not able to enjoy the devices they help to manufacture?

Case 3: One Laptop Per Child

This case focuses on XO laptops (designed by MIT engineers and manufactured in Taiwan). The One Laptop Per Child initiative, based on a not-for-profit distribution model, was founded as a social business to make simple, cheap, but effective laptop computers to sell to governments in developing nations for distribution to school children. The computers connect easily to the Internet, are made of cheap durable components, contain educational software for self-learning, and provide a ready means of digitalizing textbooks and educational materials. The project, however, has had trouble with teacher resistance and surprisingly sharp competition from for-profit organizations like Dell, Acer, Hewlett-Packard, and Intel. This case poses an interesting series of problems. For instance, are the educational capabilities targeted by these laptop computers best brought about by for-profit or not-for-profit business strategies? Are these laptops examples of participatory and value sensitive design or are they technical artifacts designed in a university lab that are, more-or-less, solutions looking for problems?

Sources

- • Kraemer, K., Dedrick, J., and Sharma, P. (2009). "One Laptop Per Child: Vision vs. Reality." **Communications of the ACM**, 52(6): 66-73.
- Ted Talk: Negroponte’s argument—the potential of this technology and its individualized learning model to bridge learning gap between children in North and South

Problems and Considerations

- • What impact does the XL Laptop have on the capabilities of learning and play? Do these two capabilities conflict with one another in the context of OLPC? Consider reports that students use their laptops to chat with one another (the capability of affiliation) or to play games (the capability of play). In your judgment, do these activities “crowd out” the learning activities that the laptops were designed to bring about?
- Teachers object to the individualized learning model embodied in OLPC machine and software designs. These teachers have, up to this point, used collective and cooperative learning approaches in their classrooms. Do technical artifacts like computers embody values or favor practices like individualized learning? Or are technical artifacts value neutral and take on values only through being deployed toward external ends or purposes? If teachers are trained primarily to bring about collective learning, is it a violation of their professional autonomy to adopt a different, individualized approach?
- Several of my students have worked with OLPC computers and Sugar software learning products. They argue that it is difficult to install the designated operating system on these laptops. They also find that it is difficult to provide training and technical support to students and teachers who must use these technical artifacts. Students find the software biased toward Western culture; for example, students in Africa found that software designed to help them compose music did not recognize local music forms. Finally, educational bureaucracies are reluctant to use OLPC technologies because their students will still have to learn how to work with widely disseminated products such as those provided by Microsoft and Apple. Do these concerns provide definitive arguments against the manufacture, distribution, and use of OLPC ICTs?
- Competition from for-profits: Dell, HP, Acer has been vigorous. This suggests that there is a market, even in poor regions, for laptop computers and other ICTs. What is the best strategy for designing, manufacturing, distributing, and using ICTs? Are for-profit models more efficient and cost-effective? Are they more responsive to issues in distributive and social justice? Or are there problems with distributive and social justice when we depend solely on markets to distribute the goods and services related to education? What is being

distributed in this case: positional goods such as technical artifacts or non-positional goods such as education? (Albert Borgmann and Martha Nussbaum provide useful discussions on the different types of goods and the different methods of distribution they favor.) Finally, which is the best method for manufacturing and distributing ICTs: for profit or not-for-profit or some combination of the two?

Case 4: Podcasting in Zimbabwe

- An NGO (Practical Action) with funds from Practical Action and HIVOS has tested podcasting as means of getting information to isolated subsistence farmers. This includes information on local agricultural markets (prices) as well as veterinary advice (how to treat sick “livestock”). This case study can be reviewed by downloading the report submitted by Practical action entitled, PODCASTING: End-of-Pilot Project Report, 1st October 2008 – 31st March 2009. Submitted to HIVOS, PROJECT NUMBER: QC005H16. Compiled by: Lawrence D Gudza URL: https://practicalaction.org/docs/new_technologies/Final_Project_Report_HIVOS_2009.pdf. The article on podcasting by Oosterlaken et al. (see references below) provides a comprehensive analysis of this project in terms of the Capabilities Approach.
- Podcasting in Zimbabwe represents another example of a compassion case if one views it as an occasion to use responsible technical choice to combat a sizable misfortune. Farmers in the targeted areas of Zimbabwe have faced challenges due to their isolation from other communities, lack of education, and illiteracy.
- The podcast project carried out by Practical Action also provides a localized response to a community-specific problem: **How can local farmers be provided with information on animal care as well as up-to-date information on market prices for agricultural products?**
- The article by Oosterlaken et al. offers a promising framework for assessing appropriate technology projects. **What impact will adopting this technology have on the capabilities that are important to members of this community?** Here the Capability

Approach stands in for well-being; the constituents for well-being are the capabilities that represent activities vitally important to community members. Crucial capabilities can be identified working with community members by using an “opportunity detection kit” (Mink et al.). These capabilities can then be further specified by identifying indicators (Deneulin). For example, the capability of education can be fleshed out in terms of indicators such as rates of graduation from high school. The advantage of indicators is that they are measurable; in this way capabilities can be unpacked in terms of quantitatively determinable content. Identifying key capabilities and their measurable indicators provides a useful procedure for assessing the success of an appropriate technology like the Podcasting in Zimbabwe project. Animal health might be used as a measurable indicator for the capability of food security. How would one measure the impact of podcasting on animal health? How could one measure the quantity and quality of the impact of the veterinarian information shared with inhabitants of isolated farms in the targeted areas of Zimbabwe? How could the delivery of veterinary information via podcasts be compared with the delivery of veterinary information via other means of communion? The Capability Approach provides a useful framework for assessing appropriate technology projects. These projects are assessed in terms of their impact on important capabilities and their key indicators. Specifically one asks whether a project has expanded or contracted the capabilities designated as important to well-being by the community members themselves.

- The analysis presented by Oosterlaken et al. also provides several insights into this case that are not forthcoming when one concentrates primarily on appropriate technology’s “specific criteria” like those discussed above in this module. Authors were able to discuss efforts by the government to restrict the technologies used in the podcasts to those that facilitated control of content; government officials wanted to make sure that the podcasts were not converted into occasions for criticizing government policies. Moreover, authors dealt with how the podcasting events reinforced questionable local attitudes toward gender roles; the subordinate position of women in these communities was reinforced by having the women sit in the back of the broadcast audiences where they had trouble hearing the materials presented.

Finally, local residents used podcasting technologies to access entertainment content rather than restricting the broadcasts to market and veterinary information.

- The Capability Approach provides a convenient way of posing situation where one capability comes into conflict with other capabilities. In this case the capability of play tends to crowd out other capabilities such as control over (economic) environment. In short, this case provides you with the opportunity to explore the Capability Approach in terms of (1) how it gives specific content to well-being and (2) how well-being is expanded as it is integrated with autonomy (agency) and justice (Oosterlaken). Finally, the Capability Approach provides a useful "correct theory" to support compassion by fleshing out the notion of well-being. Compassion no longer implies taking a condescending attitude toward those who are the subjects of this emotion. Targeting capabilities means that one seeks to empower those who are suffering from sizable misfortune; it seeks to empower those who suffer.

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Envy, Consumption, and BurgerMan

An exploration of the role envy and consumer ethics play in the fast food industry. This module is built around a well-known role-play, BurgerMan.

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I. Introduction (Version started November 2, 2018) Printed 11/8/18. Published in CNX 11/14/18. This first version has some errors on formatting which will be shortly corrected.

This module is designed to integrate the study and cultivation of emotion into the STEM curriculum. Emotions consist of appraisals of the impact of external objects on an individual's well-being. "**Envy, Consumption, and Burger Man**," will help you examine envy and its correlative, emulation. You will see how envy is defined and how it is distinguished from other emotions. Then you will review envy's constitutive appraisals (judgments on the impact of envy's object on well-being) and the importance of the virtue of emulation for controlling envy's destructive tendencies.

Because envy is one of the drivers of consumption, you will examine this emotion in the context of consumer ethics focusing on Adela Cortina's framework for responsible consumption (Por Una Etica del Consumo). Cortina's framework spells out conditions for responsible consumption. On the other hand, Judith Lichtenberg provides a framework that outlines other consumption drivers. These practices can cause untoward outcomes that she terms "new harms." New harms are collectively produced; while the contribution of an individual to these harms is negligible, these small individual contributions eventually add up to collectively produced catastrophes. Both Cortina and Lichtenberg provide concepts and frameworks that will help us to understand responsible and irresponsible consumer behavior.

Putting it all together, you will participate in a role-play where different stakeholders debate the future of a fictional fast-food fanchise, BurgerMan. Developed by Paul B. Thompson for classes in Agriculture Ethics, BurgerMan (the exercise) provides a rich context for reflecting on envy, responsible consumption, and factors that drive consumer behavior. Here are some of the important questions that this role-play addresses:

(1) Are fast foods addictive?

(2) Do modern agricultural and culinary practices degrade the environment?

(3) Can farmers (and the meat industry) improve the treatment of animals to the point where the fast food industry can eventually transition into vegetarianism?

(4) What role does the cultivation, preparation, and sharing of food play in society and culture?

(5) Do modern large-scale agricultural practices lead to the exploitation of workers and farmers in the developing world?

(6) Are consumers of food in the developed regions of the world responsible for food shortages and famine in the underdeveloped regions?

II. Emotions and Envy

These four propositions summarize the appraisal theory of emotions:

1. Emotions are intentional states of mind. According to Martha Nussbaum, "emotions “imply intentional thought or perception directed at an object (as perceived or imagined by the person who has the emotion) and some type of evaluative appraisal of that object made from the agent’s own personal viewpoint” (Nussbaum, Anger, Appendix A, loc. 5440). These intentional objects differ from one another in terms of **temporality** (past, present, future), **valence** (a positive or negative impact on well-being), and **modality** (the object is possible, actual, or necessary). Envy’s object is present, of negative valence, and is actual. In contrast, fear’s object comes toward us from some point in an impending future, has negative valence (threatens to diminish well-being), and poses a possible rather than an actual (or inevitable) state of affairs.

2. Emotions are composed of appraisals (or judgments) that (a) help us assess the impact of the emotion's object on the well-being of the individual having the emotion and (b) provide the emotion with its cognitive content. Because they have cognitive content, emotions are not irrational forces. Instead, they are, to use Aristotle's felicitous phrase, “responsive to reason.” Here are envy’s appraisals taken from Martha Nussbaum, **Political Emotions**:

Another possesses object X,

X is a sign of the possessor’s good fortune;

The envious individual does not have X and cannot come to possess X;

The envious individual wishes ill fortune on those who possesses X.

Other emotions are also constructed around appraisals. Here are the appraisals of compassion modified somewhat from Upheavals of Thought (321):

- Others are suffering from *sizable* misfortunes;
- This suffering is *underserved*, that is, they did not bring these misfortunes about through their past, voluntary actions; and
- Their well-being (and undeserved suffering) falls within my *circle of concern*.

Notice that compassion’s object is present, has a negative valence, and is actual.

An emotion can misfire if its constitutive appraisals misconstrue the intentional object or mischaracterize its impact on well-being. They can misfire (1) by being false (instead of true), (2) by being irrational (instead of rational), and (3) by being inappropriate (instead of fitting or appropriate). Emotions can misconstrue affairs because they are cognitive. Instead of being irrational forces, they are judgments that express beliefs about self and world. These judgments may go wrong but they can be corrected through two means: by straightening out their constitutive appraisals and by situating them firmly on well-substantiated, correct theories.

3. *Each of an emotion's appraisals rests upon or requires a supporting theory*. First, envy requires a **supporting theory of well-being** because the good possessed by another (that I cannot come to possess for myself) has—as I perceive it—a negative impact on my well-being. Think of Khan in **Star Trek II: The Wrath of Khan**. Khan envies Kirk; when asked why he continues to pursue Kirk beyond reason, Khan replies, "Because he tasks me…he tasks me." Kirk, in Khan's eyes, possess all that he (Khan) desires but despairs of ever enjoying for himself. Khan's only course of action (when seen through the lens of envy) is to retrieve his self-respect by diminishing Kirk.

Envy is also tied to **theories explaining consumption and consumer behavior**. Judith Lichtenberg outlines many of these in her article, "Consuming Because Others Consume." Envy drives consumption as individuals attempt to secure self-respect by owning what others own or by wishing ill fortune upon those whose possessions are beyond their means and capabilities.

4. Finally, *emotions are not only responsive to reason but essential to **practical** reason*. This is for three reasons: (a) they focus attention on the salient aspects of a situation, (b) they highlight or signal values embedded in a situation, and (c) they provide motivational force to initiate and execute effective action (Sherman 1997, 39-50). Emotions are essential to practical reason because they help solve the frame problem. According to Ronald de Sousa, the frame problem consists of the following: **"in deciding among any range of possible actions, most of the consequences of each must be eliminated a priori, i.e., without wasting any time on verifying that they are indeed irrelevant"** (de Sousa, 2017). Emotions provide "somatic markers," as Damasio terms it, that label action possibilities positively or negatively based their resemblances to past experiences. This marking, according to Wallach and Allen, "prunes the decision tree" and makes it possible to hone in on promising alternatives while quickly eliminating those that, based on past experiences, risk producing untoward consequences (See Wallach and Allen). Damasio, in **Descartes' Error** and

Looking for Spinoza, shows how patients whose brains have been damaged in regions that contribute to experiencing emotions are unable to exercise practical reason even though they prove intelligent in other ways. They can analyze a situation as a distant spectacle, do well on an intelligence test, but they cannot effectively access situations in terms of the impact they bring to their own well-being. Thus, emotions bring things home for us by relating experiences to well-being and by opening possibilities for responsive action.

Definitions of Envy: Aristotle, Nussbaum, Kant, and Smith

With these basic propositions concerning emotions in mind (and with envy's object, appraisals, and supporting theories spelled out) it is now appropriate to examine different formal definitions of envy. (Definitions three and four (Kant and Smith) come from Justin D'Arms' article on envy in the Stanford Encyclopedia of Philosophy.)

1. Aristotle

Aristotle (**Rhetoric** 1387b 21-25) argues that *"Envy is pain at the sight of such good fortune as consists of the good things already mentioned; we feel it towards our equals; not with the idea of getting something for ourselves, but because the other people have it."* Aristotle discusses emotions extensively in his **Rhetoric** because an orator's effectiveness requires that he or she understand the audience's emotions. An argument is persuasive when it effectively targets the audience's emotions and their appraisals. These appraisals shape the emotion which, in turn, motivates many of our actions. Thus, the rhetorician can appeal to emotions as a means of motivating certain action responses. Marketing specialists understand this well and use emotions to shape and direct consumer behavior. On the other hand, an individual can block the influence of manipulative advertising by strategically directing emotions and their appraisals toward authentic conceptions of well-being and toward non-positional rather than positional goods. Positional goods are targeted by first order, non-refined desires and preferences; examples would include foods heavy with fats, salt, and sugar which trigger urges to consume beyond what is needed or healthy. BurgerMan can empower its customers to make good food and dietary choices; the franchise need not be tied to reflecting existing consumer desire or even to stimulating desire through foods that offer tempting combinations of fats, salt, and sugar.

This raises four questions pertaining to consumer ethics”

- How essential are positional goods to one’s well-being?
- What consumer behaviors need changing because they contribute to harming others?
- Can one change from consuming positional goods toward the pursuit of non-positional, non-rivalrous goods? A non-rivalrous good is one that can be shared. My enjoyment of a non-rivalrous good does not exclude others from enjoying it. ON the other hand, my taking a bite out of this apple leaves that much less for you to enjoy; my consumption of the apple rivals your consumption.
- Can this exercise of choice be driven by ethical and value considerations? Can, say, BurgerMan customers control their compulsive, possibly addictive, pursuit of foods that, because of fats, salt, and sugar, trigger cravings and excessive eating habits? Think of this in the context of the movie, Supersize Me where the argument is made that fast foods cause compulsive eating which causes obesity. Or consider the argument of David Kessler (**The End of Overeating**) which argues that the fast food industry has deliberately designed foods that combine fats, salt, and sugars to produce irresistible but unhealthy concoctions.

2. Martha Nussbaum

In Political Emotions, Nussbaum defines envy as *“a painful emotion that focuses on the good fortune or advantage of others, comparing one’s own situation unfavorably to theirs. It involves a rival, and a good or goods appraised as important; the envier is pained because the rival possesses good things and she does not”* (Nussbaum 2013, 339*)*. Nussbaum argues that envy is primarily a negative emotion. It does not motivate one to strive to raise oneself to the standards set by the envied others. Instead, by wishing ill fortune on these others, the envier seeks to bring others down to a lower level. This negative characterization places envy beyond reform; the proper course for the envier is to transform this negative emotion into something else, something positive. Emulation provides one such replacement, and Nussbaum provides a ready example in Political Emotions. If I envy your good grades, I wish ill fortune upon you; I hope you fail the next text. On the other hand, if I emulate your good grades, I seek to bring my academic performance up to your level. I study harder, hone my test taking skills, and strive to bring my performance up to your level. Both envy and emulation seek an equality of sorts but while envy achieves this by lowering the object of envy, emulation does so by motivating higher achievement through hard work and diligence.

3. Kant

According to Kant, "*Envy is a propensity to view the well-being of others with distress, even though it does not detract from one's own. [It is] a reluctance to see our own well-being overshadowed by another's because the standard we use to see how well off we are is not the intrinsic worth of our own well-being but how it compares with that of others. [Envy] aims, at least in terms of one's wishes, at destroying others' good fortune*." (Kant, The Metaphysics of Morals 6:459. Quoted in D'Arms, 2017). Kant's definition highlights two important characteristics of envy. First, the standard by which one judges oneself is suspect in envy; the person envied becomes the standard the envier uses to measure self-worth. But this standard is not one that has intrinsic value. Tying self-worth to the goods possessed by another without any consideration of the intrinsic value of these goods renders self-worth vulnerable. Second, Kant states more forcefully, Nussbaum's point that envy is negative. The envier not only wishes the envied other ill will; he or she "aims at destroying the others' good fortune." If anything, envy is more destructive under Kant's view. Consumption driven by envy is prone to spiraling out of control; consumption is inaugurated in order to secure self-respect but these means never secure their end. Cortina's framework for responsible consumption seeks to reset consumption around less vulnerable, and, at the same time, more intrinsically moral standards. In fact, Kant's Categorical Imperative plays a central role in her development of autonomous and just consumption.

4. Adam Smith

Envy, for Adam Smith, “*is that passion which views with malignant dislike the superiority of those who are really entitled to all the superiority they possess.*” (Adam Smith, **The Theory of Moral Sentiments**, p. 244. Quoted in D'Arms, 2017) Smith’s definition, again, ties envy to self-respect; envy “stings” the one who feels it because it revolves around the assertion that another’s possession of a position good diminishes one’s own well-being, especially those aspects of well-being that are tied to social status. Later on in **The Theory of Moral Sentiments**, Smith provides an antidote to envy. Sympathy (or compassion) counteracts envy’s desire to diminish the well-being of another; it places one into the perspective of another and empowers one to see things from their point of view. Empathy’s imaginative projection into the perspective of another also makes us aware of the vulnerabilities weshare with others. This perception of “similar possibilities” form an essential component (and driver) of the emotion of compassion. Envy blocks altruistic motives and actions while compassion encourages them.

Studying envy, its appraisals, supporting theories, and varying definitions, will provide insights into consumer ethics. In the next section, you will learn Adela Cortina’s framework of responsible consumption and Lichtenberg’s complimentary framework of the drivers of consumption. This will set the stage for the BurgerMan role-play. BurgerMan’s current business plan is responsive to the current consumption behaviors of its clientele; BurgerMan responds to preexisting consumer desires. If its customers want more fat, salt, and sugar, then BurgerMan will provide these commodities. In the role-play, you will view this policy critically. Can BurgerMan play a positive role in shaping consumer desires and practices away from destructive modes of consumption and more towards responsible consumption?

An Interlude: Happy Denmark

In a news story broadcast on the PBS News Hour, reporter, Malcolm Brabant looks at the results of UN pole that identifies Denmark as the happiness nation in the world. One explanation for this is offered by one of the individuals interview; citizens of Denmark are not so much happy as satisfied? Does the notion of satisfaction capture the notion of happiness?

Another hypothesis suggested in this report is that citizens of Denmark are happy because they lack envy. Jantelov, a key trait shared by the citizens of Denmark, can be defined as the absence of envy. If envy is a driver of consumption, then the absence of envy (Jantelov) in Denmark indicates that consumption is not the driving force in that society. Can happiness be reduced to the absence of envy or is something positive required to complete the concept of happiness?

Consumer Ethics: Introductory Comments

Adela Cortina has set forth a framework for responsible consumption that promises to anchor a comprehensive approach to consumer ethics. At the beginning of her book, **Por Una Ética del Consumo**, she argues that consuming provides a central perspective from which to view the human being. In the past, humans have been seen through the lens of Aristotle's **zoon politikon** (the political or social animal), the rational animal (the animal capable of thinking and reasoning), and Marx's view of **homo faber**, the human as a being that defines itself through productive labor. Most recently, humans have been understood through the lens of **Homo Economicus**; human society emerges from a social contract between individuals each of whom is a rational, self-interest maximizer. Under Rawls' version, the contracting human individuals seek to maximize their access to primary goods under a veil of ignorance. These primary goods include rights and liberties, opportunities and powers, income and wealth, and self-respect. Cortina holds that the twenty-first century will be characterized as the age of **Homo Consumens**, where humans are seen as consuming beings, as beings who live to consume. Ethics in the age of Homo Consumens takes on the form of a consumer ethic. How do individuals practice responsible habits of consumption? How can humans develop modes of consumption that are **autonomous** (avoid addictive practices), **just** (avoid unfair distributions of benefits and costs), **co-responsible** (generate a conclusive dialogue between stakeholders) and **happiness-generating** (help humans lead full, meaningful lives).

We are already familiar with issues pertaining to responsible consumption. For example, in a recent presentation at the University of Puerto Rico at Mayagüez, an engineering professor made two claims that were immediately attacked by the audience. First, given deplorable working conditions in factories in China, she argued that consumers in Puerto Rico are morally obligated to boycott products made in China. She argued that such a boycott would give voice to those who suffer from sweatshop working conditions. It is unethical for consumers in developed economies to buy products produced under conditions of exploitation; buying these products makes their consumers complicit in these wrongful labor practices.

Several members of the audience vigorously opposed this assertion. They argued that boycotts are generally ineffective; historically they have failed to reach their intended objectives. They also lead to perverse consequences; boycotts often intensify the harms suffered by the victims. Would it help to boycott BurgerMan to get them to pressure their suppliers to reduce harm to animals and to minimize environmentally unsound practices? On this argument, such a boycott stands in danger of producing unintended harmful results that may even extend to the opposite of the results such a boycott intends.

The second claim made by this professor during her presentation was that consumers in Puerto Rico should make every effort to buy products made in Puerto Rico. On this argument, Puerto Ricans owe it to their neighbors to buy their products because they are neighbors; their proximity creates special moral and political obligations that override other considerations. But what if these made-in-Puerto-Rico products are not as good as their non-Puerto Rican competitors? Under free market economics, it is harmful to prefer inferior products when superior ones are available and competitively priced. This would send the wrong message to buyers and sellers and pervert the operation of the free market. Redressing injustice, ameliorating poverty, and promoting community solidarity are worthwhile projects but they fall outside the purview of the free market. Thus, the current management team of BurgerMan would respond to those who would challenge its practices on social or ethical grounds that BurgerMan’s only responsibility is to make money for its owner/investors. Should shareholders want to improve animal treatment, embrace environmentally sustainable farming practices, or provide employees with improved job benefits, then they should lobby their government to enact industry-wide regulatory standards to these ends. Or they could create a not-for-profit

NGO (non-government organization) that would work on these problems funded through charitable contributions.

Let’s say that BurgerMan has restaurants in Puerto Rico and they have been approached by those who would have them sell only coffee grown, harvested, and processed in Puerto Rico. This would rule out, not only international coffee brands, but many brands associated with Puerto Rico since these may have off-island owners and import coffee beans. Should BurgerMan make a special effort to use only those coffee brands grown, harvested, and processed in Puerto Rico? What if this coffee is inferior to off-island brands? The current BurgerMan management team would argue that BurgerMan is under no obligation to support local coffee growers. A different group of shareholders with a broader sense of corporate social responsibility may argue differently.

Before turning to these questions in the BurgerMan role-play, let us consider two important components of a consumer ethic, a framework for responsible consumption (taken from Adela Cortina) and a framework of factors that shape and drive consumption (taken from Judith Lichtenberg).

Responsible Consumption: A Framework by Adela Cortina

Cortina holds that responsible consumption has four components: autonomous consumption, just consumption, co-responsible consumption, and happiness-generating consumption. Here is each in more detail.

Autonomous Consumption. The imperative to exercise moral control over consumption patterns and behaviors falls under the concept of autonomous consumption. Consumers should strive to make choices that enhance or expand freedom. This can be unpacked in terms of the Capability Approach described by Amartya Sen and Martha Nussbaum. For example, under the capability approach, consumers should take steps to increase the number of functionings that realize targeted capabilities. Food security is one such capability. It can be realized through a number of functionings including low cost food items, healthy food choices, and food growing practices that are sustainable and of low environmental impact. Bodily health is another relevant capability that requires the multiplication of means for making healthy food choices. For BurgerMan to enact policies and practices consistent with bodily health, it should offer menu options that decrease dependency on foods laced with addictive fats, salt, and sugar. Its menu options should offer multiple healthy food choices such as salads and, perhaps, meat substitutes. Autonomous consumption should steer individuals away from addictive food consumption habits toward options that allow for multiple realizations of food security and bodily health.

Just Consumption. Cortina uses Kant's Categorical Imperative and the Capability Approach to identify consumption behaviors that are just. First, just consumption is equitable. Cortina unpacks equitable consumption in terms of the Catagorical Imperative. Applied to consumption, the Categorical Imperative requires that the maxims an individual uses to make consumption choices be universalizable, that is, equally applicable to all others. Consumption maxims should not set certain individuals aside as special exceptions to the universal rule. (A maxim for Kant is a personal or subjective rule, one that individuals set for themselves. A moral maxim as set forth by the Categorical Imperative is one that can be consistently converted into a universal law.)

Cortina also uses the Capability Approach to flesh out the notion of just consumption. Capabilities are beings or doings that constitute a flourishing life. Just consumption should expand rather than contract the capabilities of *all* human beings. Since capabilities are expanded by multiplying their functionings, just consumption requires (1) enhancing the skills and knowledge of individuals, (2) increasing the affordances the socio-technical environment offers as means for realizing capabilities, and (3) realizing one capability in ways that do not impede the possibility of realizing other, important capabilities. McDonald's provides a case in point. Werhane et al. show that McDonald's policies toward employees in its international operations contribute positively to just consumption and economic justice. Their restaurants (and franchises) provide a point of entry into the global economy for individuals who lack other options. They are provided opportunities to learn important management skills and to be promoted from within through a working environment that uses merit as a basis for advancement. McDonald's also has its own university that provides employees with opportunities to expand their educational capabilities and to be promoted from within. Especially in the international context, these restaurants provide employees with affordances that aid in the realization of the capability Paul Thompson calls “food entrepreneurship.”

BurgerMan has **not**, to date, expanded its employee programs to include these features. The current BurgerMan team sees no need to do this. BurgerMan works primarily with part time and short term employees. Its high turnover rate has discouraged this franchise from offering employees health benefits and has motivated the company to lobby for keeping the minimum wage at its current level. However, the shareholders and stakeholders who are bringing progressive policies to BurgerMan think otherwise. They think that justice requires expanding employee choices through health insurance programs, higher wages that bring employees above minimal capability thresholds, and a working environment that is collegial and offers opportunities for advancement through merit-based promotions and continual education.

Coresponsible Consumption. Consumption choices and emerging behaviors and patterns must be brought under the purview of a broad dialogue or conversation in which different constituencies have an opportunity to clarify and give voice to their stakes and interests. This is especially the case when one turns to the impacts of the consumption habits of the **developed** world on **developing** worlds. Climate change provides a dramatic example: are the consumption habits of those living in the developed world causing climate change? Are those whose consumption habits contribute to climate change and its adverse impacts causing harm to individuals who are not contributing to climate change? This issue should be explored through multiple-participant dialogues with an emphasis on giving voice and eliciting the participation of those least affluent and most likely to be victimized by the consumption habits of others. Just consumption points to the situations where the excessive consumption of some lead to adverse consequences distributed to those who do not excessively consume or may even be deprived of required necessities. Just consumption thus points to situations where the benefits and costs of consumption are inequitably (and unfairly) distributed among different communities across the world. Co-responsible consumption gives voice to those who must bear the costs of the consumption practices of others. They have a say in determining whether the consumption behaviors of the prosperous are just, sustainable, and responsible.

The dialogue generated through co-responsible consumption also brings to the attention of all what Judith Lichtenberg terms “new harms.” For example, the case, Drop by Drop, examines how the enjoyment of asparagus out of season by consumers in developed nations such as the United States, Great Britain, and the Netherlands, comes at the cost of displacing subsistence, indigeneous farmers in Peru. It turns out that asparagus farmers in Peru have diverted water from these subsistence farmers to irrigate their asparagus fields. The benefits accrue to consumers in prosperous nations and to the asparagus farmers in Peru, but the cost fall largely on these subsistence farmers who enjoy none of the benefits. New harms are collectively wrought. The consequences produced by the action of isolated individuals do not produce noticeable harmful consequences but these can be aggregated into collectives where the harm is considerable and noticeable. For example, my eating asparagus in December in Indiana hardly is responsible for marginalizing farmers in Peru. But combine my actions with many other consumers of asparagus in the U.S., the Netherlands, Great Britain, and Australia and the collective effect is devastating. Because they arise at the level of collective action, new harms are difficult to recognize and remediate. But giving voice to those who bear the brunt of the actions of these consumers acting collectively makes it much more likely that these harms will be recognized and remediated.

Co-responsible consumption issues in a dialogue that arises when diverse consumers share and compare their consumption practices. It brings attention to consumption behaviors that violates standards of autonomy and justice. It also draws attention to consumption practices that block the ability of individuals to lead lives consistent with happiness, flourishing, and well-being.

Happiness-Generating Consumption. This element of Cortina’s framework of responsible consumption holds that consumption choices should promote the overall objective of realizing happiness. But rather than embrace the hedonistic conception of happiness that has dominated recent discussion, Cortina turns to the older conception of eudaimonia. This term literally means having a good daimon or spirit; Aristotle unpacks it as doing well (living a life of virtue) and faring well (being fortunate and having full access to primary goods). Cortina continues by identifying two characteristics of the virtuous consumer: lucidity and "cordura." (I leave the Spanish term, "cordura," untranslated.) Crocker says the following about consumption that takes place in accordance with lucidez and cordura:

> "Good character…consists most importantly of two virtues: lucidity and practical wisdom or good sense (cordura)"….The lucid consumer is aware of her consumer habits and motives, especially ones that tend to be obsessive or addictive….More than prudence with its exclusive focus, direct or indirect, on self-interest, cordura is that kind of wise self-control that retains prudence's middle way between excess and defect but extends moderation to get the proper balance, on the one hand, between one's own well-being and that of others, on the other, between human appropriation and conservation of nature's bounty" (Crocker 237-8).

Happiness generating consumption does not lie in consuming more or consuming more than those who live in one's immediate surroundings. It involves pursuing the right kind of goods, for example, non-positional goods like friendship, truth, and beauty as opposed to positional goods like rank, power, and honor. Striving for non-positional goods averts the zero-sum-game struggle that arises when one competes with others for positional goods. To put it differently, happiness-generating consumption, that is, consumption guided by eudaimonia and characterized by lucidity and cordura, circumvents envy.

Another Interlude: How to spend $2,500,000

About 40 minutes into the movie,Margin Call, Peter Sullivan and Seth Bregman ask Will Emerson how much he made last year. When he replies two and a quarter million, they ask him how does one go about spending so much money. It's easier than you think, he says and goes on to break it down according to the following table:

Taxes	**$1,250,000**	
Mortgage	$ 400,000	
Parents	$ 150,000	
Car	$ 150,000	
Restaurants	$ 75,000	
Clothes	$ 50,000	
Savings	$ 400,000	
Entertainment	$ 75,520	“hookers, booze, and dancers” (tax write-off)

While this doesn’t quite total to 2.5 million, it does provide a reasonable list of the ways one spends money when living and working in Manhattan. Using Cortina’s framework, identify those elements that plausibly conform to the components of responsible consumption and those that don’t. Moving below, provide a short analysis of this list of expenditures in terms of the drivers of consumption. For example, which of these expenditures could be ascribed to networking and infrastructure effects?

Drivers of Consumption:

Cortina’s conception of autonomous consumption includes the ideas of decoding advertising and avoiding compulsive consumption behaviors as well as refraining from consumption practices that are addictive. But is all consumption negative? Does Homo Consumens represent an irreversible degradation of human nature?

We can answer these questions with a tentative “no.” Following Judith Lichtenberg, we can identify several drivers of consumption. Only the last is largely negative. The first four can be moderated through the virtue of temperance; consuming behavior is morally acceptable if it steers between the extremes of a false asceticism and compulsive non-limiting consumption. Here is a brief summary of the some of the motive of consumption as outlined in her paper, Consuming Because Others Consume.

Networking and infrastructure effects. Objects of consumption start out as luxuries but as they are enrolled in our socio-technical systems, they become objects of necessity. Cars provide good examples. As we came to use them more and more, we have altered out environments and life practices to incorporate them to the point where cars are needed to carry out basic transportation needs. Schools, grocery stores, stores, and centers of government are no longer within walking distance. Cell phones have altered communication practices to the point that they are required to stay in touch with family, carry out many economic transactions, and carry out many business and work tasks. In the following passage, Lichtenberg captures the way in which luxuries become necessities (Lichtenberg 2014, 129):

> The telephone, radio, television, computers, the Internet, not to mention the various iThings—when first introduced such items may seem like luxuries for the rich or gadget-addicted. Soon, however, their benefits become apparent; when a critical mass of users develops, not having the item can sconstitute a genuine handicap.

Demonstration effect. Seeing others possessing and enjoying objects (luxury cars, cellphones, designer clothes) creates the desire in ourselves to possess and enjoy these same things. Sometimes this is driven by envy and results only in our wishing ill fortune on others who possess what we cannot. But on other occasions, this provides means for participation in social and community life as well as ready means for securing self-respect. Lichtenberg quotes Dusenberry on the demonstration effect:

> In given circumstances…individuals come into contact with goods superior to the ones they use with a certain frequency. Each such contact is a demonstration of the superiority of those goods and is a threat to the existence of the current consumption pattern. It is a threat because it makes active the latent preference for these goods…For any particular family the frequency of contact with superior goods will increase primarily as the

consumption expenditures of others increase. Lichtenberg quoting Dusenberry.

Ability signaling. Professionals possess knowledge and skills that result from years of training and study. But this is not readily apparent to those who would contract their services. Ability signaling provides a short cut to validating a professional's competence. If a doctor drives a nice car, has an attractive waiting room and office, and displays up-to-date specialized equipment, then this signals his or her abilities to those who cannot more thoroughly attend to and assess the individual's skill and knowledge. I trust a doctor because the nice car he drives signals that others have paid him well for his services, and they have been satisfied with the results.

Self-respect. Adam Smith observes that while linen shirts and leather shoes are not the basic necessities of a human life—we can live without these. But they are necessities for men who would appear in public in the 18th century shame. Certain goods must be acquired for us to achieve a respectability in the eyes of others. Pursuing and acquiring these goods is not necessarily a good and acceptable thing; nor is it an expression of envy. Here is the famous passage from Smith quoted in Lichtenberg 2014, 135. This passage comes from Smith's Wealth of Nations, book V, Chapter 2.

By necessaries I understand, not only the commodities which are indispensably necessary for the support of life, but whatever the custom of the country renders it indecent for creditable people, even the lowest order, to be without. A linen shirt, for example, is, strictly speaking, not a necessary of life….But in the present times, through the greater part of Europe, a creditable day-labourer would be ashamed to appear in public without a line shirt, the want of which would be supposed to denote that disgraceful degree of poverty, which, it is presumed no body can well fall into without extreme bad conduct.

Consuming to achieve equality. We consume because others consume. Sometimes our behaviors are driven by the desire to attain equality with others. This is acceptable because it is sustainable. On the other hand, excessive consumption driven by the desire to surpass others in the acquisition of luxury goods is a bad thing because it is ultimately unsustainable. Lichtenberg takes Veblin to task for assuming that all status-related consumption is driven by the desire to surpass others; she argues that many consumption behaviors and practices pursue parity with others. This can be of advantage because excessive collective consumption can be collectively set at a lower level without individual sacrifice. I can live at a lower, more sustainable level of conbsumption if others do the same and I desire only parity, not superiority, to these others.

How does all of this tie in with BurgerMan? We eat fast food because we enjoy it, because it is convenient, and because we often do not have time to cook our own meals. We also may eat at restaurants because eating food that we cook for ourselves at home is, by some, considered an indication of a lower social status. In the past a wealthy family could hire servants to cook their meals. Now the restaurant serves as a substitute for the family servant and allows one to validate one's social status by still showing that others cook one's meals, at least at certain times.

Against this, Albert Borgman argues that eating at fast food restaurants levels off the deeper satisfaction we used to derive from eating meals with family and friends and consuming food that we ourselves have produced through our labor. Originally, because it symbolized family and social solidarity, sharing means was a centering or focal activity for Borgman. Now eating no longer serves as a focal activity and much of the blame has been laid at the doorstep of fastfoor restaurants like BurgerMan. Rather than representing a deeply significant focal activity eating corresponds more to what Borgman terms the "device paradigm." Eating has become an activity whose broader significance for our lives has been largely lost; rather than being a centering activity, it is something that occurs on the margins of our living. We eat our meals while watching TV or cruising the Internet. (See Borgman and Thompson 2016.)

We are hungry and BurgerMan responds by providing us with food that tastes good and quickly made available. Current management argues that BurgerMan needs only to respond to existing consumer desires. But you job in the shareholder meeting is to propose a new management team whose policies convey an conception of social responsibility that is broader, more responsive to consumer ethics, and more inclined to educate and refine consumer desires than merely reflect them. In the next section, we will briefly outline some of the basic positions of BurgerMan’s current management team.

What you are going to do

With these two frameworks in mind, Cortina’s framework of responsible consumption and Lichtenberg’s framework of the drivers of consumption, we can now turn to a reflective examination of consumption in the fast food industry through an exploration of the fictional fast food franchise, BugerMan.

BurgerMan is a fictional fast-food franchise resembling McDonalds or Burger King. We are now BurgerMan stockholders. Our job consists of proposing a new management team that will replace the current one and enact a more progressive set of policies in relation to BurgerMan’s stakeholders: its stockholders, employees, customers, the local communities in which it operates, suppliers, and citizen interest groups who have taken an interest in BurgerMan and its current mode of operations. Here are six policies that form key planks in their vision for BurgerMan:

Current BurgerMan practices and policies:

(1) BurgerMan is not responsible for the current "epidemic" of obesity. Contrary to what many say, fast food is not addictive. People eat BurgerMan products because they taste good and are “fast foods.” BurgerMan has been responsive to consumer demand and will continue to be so in the future. While BurgerMan responds quickly to existing consumer demand, it does not create or drive this demand; it does not create new desires or preferences through subliminal or manipulative advertising.

(2) BurgerMan sees no reason for changing the way it chooses its meat suppliers. These entrepreneurs are chosen because they provide a quality product (meat) at a low price. Of course BurgerMan expects its meat suppliers to operate within the parameters of the law. Even though animal rights groups may make statements to the contrary, our meat suppliers conscientiously follow local, state, and federal regulations. Finally, BurgerMan takes no positon regarding the whether or not eating meat contributes to or detracts from consumer health. This is a controversial

issue and must be settled by studies carried out by the medical community. We will comply with the results of these studies if and when these become standards enshrined in government regulations and applied to our competitors as well as to ourselves.

(3) BurgerMan vigorously denies that it contributes to environmental degradation. The farmers who supply our food are well within state and federal environmental regulations. We have been steadily upgrading our fleet of trucks by purchasing vehicles that comply with increasingly more stringent emissions and fuel efficiency standards. Our restaurants also make use of the latest, energy efficient technologies. Finally, we have made efforts to find suppliers across the globe whose agricultural practices conform to local environmental, labor, and safety standards.

(4) BurgerMan treats its workers with the utmost respect and concern. In fact, a recent study shows that BurgerMan is one of the few companies that promotes from within (Hartman). While other companies give preference to managers graduating from prestigious MBA programs, BurgerMan values on the job experience. Although entry-level employees do not receive full benefits such as medical benefits, those who ascend the ladder of internal positions do receive full benefits. We oppose unionization of our employees because we prefer to deal directly with them in negotiating wages and working conditions. We also oppose raising the minimum wage because this puts BurgerMan (and the restaurant industry as a whole) at a competitive disadvantage. We believe in supplying a quality product at as low a price as possible. Raising the minimum wage does not allow this. Finally, BurgerMan recognizes the possibility that some food suppliers from developing nations exploit farmers and employees in the production of food and other consumable products. We, therefore, recognize fair trade standards and practices and will make every effort to contract with them to provide BurgerMan with fresh, healthy, and nutritious food. (A quick review of its yearly Corporate Social Responsibility Statements shows that McDonalds has made efforts to contract with suppliers that conform to fair trade standards as well as establish dialogue with citizens’ interest groups such as PETA.)

(5) BurgerMan supports the local communities in which it operates by hiring from the local labor pool, by paying its fair share of taxes, and by supporting employees who wish to participate in local development projects. We make a special effort to study local architecture and design restaurants that fit into these architectural surroundings and display local and traditional styles. BurgerMan also broadens its general menu to include local cuisine. Our study of local culinary traditions manifest our deep respect and concern for the communities in which we operate.

(6) Finally, BurgerMan supports its stockholders by providing them with a maximum return on their investment. We are a well-managed company. This is manifested in what we have stated above: we follow sound practices and strategies for choosing our suppliers, contracting out employees, and choosing the communities in which to house our restaurants. We are sensitive to shifting consumer demand and desires and continually update products and services to reflect these. While we recognize our social responsibility to all our stakeholders, we give priority to our stockholders. Our social responsibility is to make money for those who choose to invest in our company; by taking care of stockholders and remaining competitive, we allow the invisible hand of the market place to take care of the rest of our stakeholders.

The Role Play

You and your group will be assigned one of the following six stakeholder roles. Your task will be to bring the agenda of your stakeholder group (its interests and roles) before the stockholders of BurgerMan. You will argue against BurgerMan’s current approach and work with the remaining five stakeholder groups to set forth a more “progressive” plan for BurgerMan.

Stockholders

Employees

Customers or clientele

Local community representatives

Suppliers

Citizen interest and advocacy groups

Prepare a short presentation of your stakeholder position. Listen carefully to the other stakeholders. Form a caucus and work together to develop a comprehensive and more progressive managerial approach to BurgerMan as it approaches a crossroad in its corporate development.

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